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ABSTRACT

This guide provides an introduction to competency-based employment and training under the Job Training Partnership Act (JTPA). The guide describes in general terms the steps service delivery areas should take to implement competency-based employment and training systems for youth. The content is based on the experiences of practitioners, and it is intended as a working introduction to major issues in the design, operation, and management of competency-based programs. The guide is organized in four parts. The first part provides background information on JTPA legislation and regulations, the concept of competency-based employability development for youth, advantages of a competency-based approach, and roles and responsibilities. The second part of the guide introduces the elements of competency-based employment and training. This section describes general tasks and specific duties, such as determining local employer standards, developing indicators and benchmarks, assessing and measuring competencies, focusing program opportunities on competency attainment, and recording ongoing competency attainment. The third part of the document focuses on implementation issues, while the fourth part summarizes the whole program process. Appendixes to the guide include a sample competency-based system and an annotated resource guide containing assessment instruments, publishers' addresses, and a bibliography. (KC)

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AN INTRODUCTION TO COMPETENCY-BASED EMPLOYMENT AND TRAINING PROGRAMMING FOR YOUTH UNDER THE JOB TRAINING PARTNERSHIP ACT

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FOREWORD

This document is a publication of the Center for Employment and Income Studies (CEIS), Brandeis University. Publication of this document is made possible by a contract from the U.S. Department of Labor (11-99-8-1879-33-41). The CEIS is a national clearinghouse of information on effective youth program practices, policy, and research. In this period of legislative transition from CETA to the new Job Training Partnership Act, dissemination of reliable information becomes an important first step in revitalizing youth programs in the United States. For further information on CEIS activities, services, and publications, write:

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The purpose of this Guide is to provide an introduction to competency-based employment and training under the Job Training Partnership Act. The guide describes in general terms the steps Service Delivery Areas should take to implement competency-based employment and training systems for youth. It does not provide more detailed information on available competency systems.

Much effort from many people went into the production of this document. The principal author was Greg Druian; Rick Spill researched and wrote the Appendices. Alan Werner edited the document, with a great deal of assistance from Paul Clancey and Audrey Shelto. Our Brandeis colleagues Andrew Hahn and Erik Butler also provided assistance. Hugh Davies and Jim Wiggins of the U.S. Department of Labor both provided the impetus for the production of this document and rendered guidance along the way. Evelyn Ganzglass of the National Governors Association and Jeffrey Zornitsky of the Massachusetts Division of Manpower Affairs were also helpful.

Many sources of information were used in the preparation of this Guide, and many persons contributed useful ideas. Special acknowledgement is due to the authors of the following documents, however, for the key ideas that make up the substance of this Guide: "Benchmarking," A.L. Nellum and Associates; "Benchmarking: A State of the Art Review," Syracuse Research Corporation; "Benchmarking and Assessment: An Approach to Developing Youth Employment Competency," Technical Assistance and Training Corporation; "Career Passports: The Job Connection," National Institute for Work and Learning; "Consolidated Youth Employment Program: Promising Connections for Youth," Osoro and Associates; "Individualizing Service Delivery for Vocationally At-Risk Youth: A Guide for State Policy Makers," Consortium on Education for Employment; "Ready to Work: Using Competencies, Standards and Assessment to Meet Local Employer Needs," Northwest Regional Educational Laboratory; "Recognizing Learning Outcomes for Employment," Consortium on Education for Employment.

Table of Contents

	Page
Preface	1
Part I: Introduction	3
Section 1: Background	3
A. JTPA Legislation and Regulations	3
B. Concept and Context of Competency-Based Employability Development for Youth	5
C. Advantages of a Competency-Based Approach	9
D. Roles and Responsibilities	11
Section 2: Elements of Competency-Based Employment and Training	15
Part II: Developing and Implementing a Competency-Based Employment and Training System for Youth	19
Section 1: General Tasks	19
Section 2: Getting Specific	24
A. Determining Local Employer Standards	24
B. Developing Indicators and Benchmarks	31
C. Assessment and Measurement of Competencies	39
D. Focusing Program Opportunities on Competency Attainment: Individualized Planning for Employment Skills	51
E. Recording Ongoing Competency Attainment	59
Part III: Implementation Issues	73
Part IV: Conclusion	77
Appendix I: A Sample Competency-based System	81
Appendix II: An Annotated Resource Guide	98
Section 1: Assessment Instruments	99
Section 2: Publishers' Addresses	141
Section 3: Bibliography	149

PREFACE

The purpose of this document is to provide an introduction to competency-based employment and training for young people as envisioned under the recently enacted Job Training Partnership Act.

Under JTPA, the legislative intent is clearly a partnership at the local level designed to meet the needs of program participants and local employers. In that spirit, this Guide has been designed to be of assistance to those playing key roles in JTPA implementation. While this document focuses more on the role of those directly responsible for developing youth programs under JTPA, such as SDA and direct service management and staff, it will be of use to other key actors, as well. This includes the Governor's employment and training staff, Private Industry Councils (PICs), and other agencies supporting SDA efforts.

The Guide is designed to introduce practitioners to the main concepts and practices of competency-based employment and training for young people. The content is based on the experiences of practitioners, and it is intended as a working introduction to major issues in the design, operation, and management of competency-based programs.

In an era of shifting public resources, competency-based employment and training represents an opportunity to target resources more efficiently and to enhance the overall effectiveness of programs. Competency-based employment and training can be an exciting way to bring together sound, commonsense approaches to preparing youth for success in the workplace. The concepts presented here have been used by practitioners in many different contexts; they can be applied with equal success to youth employment and training programming.

There are some objectives that this guide is <u>not</u> designed to meet. The guide is not a "cookbook" with direct, specific instructions for the development of a competency-based system. It does not, for example, suggest that practitioners use a particular type of assessment instrument for

a given competency. Rather, it describes the variety of tools available and leaves considerable room for discretion at the local level. This guide is but the first step in the development of youth employment competencies, just as first steps are being taken for all aspects of the JTPA performance standards process.

PART I: INTRODUCTION

Section 1: Background

A. JPTA Legislation and Regulations

THE INTRODUCTION EXPLAINS THE CONTEXT OF COMPETENCY-BASED EMPLOYMENT AND TRAINING FOR YOUTH UNDER JTPA; IT ALSO PROVIDES AN ORIENTATION TO THE CONCEPT OF COMPETENCY-BASED EMPLOYMENT AND TRAINING; AND IT OUTLINES THE ADVANTAGES OF THE COMPETENCY-BASED APPROACH

The recently enacted Job Training Partnership Act (JTPA) provides a new program and delivery system to train economically disadvantaged persons and others for permanent employment. Consistent with the intent of Congress, the Act provides maximum local authority and flexibility at the state and local levels in the design and administration of programs. Furthermore, the Congress has recognized that as an investment in human capital, job training must be measured against criteria to help determine whether the investment has been productive. As a result, the Secretary of Labor has been directed to establish performance standards for JTPA programs, including programs serving youth. This Guide relates directly to Regulation 629.46(a) and to the U. S. Department of Labor's administrative issuance on performance standards.

Among the factors specified in the legislation as appropriate measures of program success is the attainment by program participants of employment competencies recognized by the local Private Industry Council.

This Guide is written to provide background information, sample activities and techniques, and suggested resources which could be used by those having the responsibility for planning and implementing competency-based employment and training programs for youth under JTPA. This guide is primarily intended for staff of Service Delivery Areas (SDAs) and private industry council (PIC) members who will be playing key roles in the planning and design of youth programs. But it is also written for anyone who will be involved in the partnerships through which JTPA will be carried out. This might include:

- staff of Governors' offices
- Other staff of Service Delivery Areas (SDAs)
- staff of agencies operating youth programs

Within this document, the reader will find an introductory discussion of competency-based employability development planning for young people, with emphasis on:

- working with local business to develop youth competencies;
- developing "indicators" and "benchmarks" of competency attainment;
- assessing competency attainment;
- targeting program services to identified competencies;
- certifying and recording competency attainment.

It should be clear that competency-based employment and training offers an important opportunity for reconceptualizing services to youth. This reconceptualization will provide the opportunity for the more effective targeting of program resources, for tailoring programs to individual needs, and for making programs more responsive to local employer standards.

B. Concept and Context of Competency-Based Employability Development for Youth

For some time now, practitioners in many fields have been experimenting with techniques for improving the learning process by carefully specifying what is to be learned, describing how it will be measured, and designing activities focused on producing the desired learning. These techniques have been helpful to young people engaged in different kinds of learning experiences.

Many public schools today have renewed emphasis on "basics," and are developing standardized, objective measures of "competence" which can be applied to grade completers and graduates. Vocational educators have long built instructional programs around specific, measurable skills which are needed in the workplace. In the employment and training system, several interesting approaches for training youth have been developed based on careful identification of skills youth need for success in the world of work. Some of the more noteworthy of these approaches were the Consolidated Youth Employment Program (CYEP), the Vocational Exploration Demonstration Project (VEDP), the Career Passport Project, the Skill Center Advanced Training and Employment Program (SCATE), and the Hartford Private Sector Training and Employment Program.

Standardized learning objectives are also used extensively and effectively in the private sector. Trainers in business and industry have found training to be more effective when subject matter is presented in specific, measurable terms.

DEFINITION OF COMPETENCY-BASED LEARNING

These techniques, with their focus on defining content to be learned, and the connected tasks of assessing what the learner knows and providing learning experiences which lead to the desired, defined outcome may all be referred to as variations on the concept of "competency-based learning."

The term "competency" is used to indicate a wide range of learnable outcomes. Skills, such as typing, assembling a carburetor, or describing career preferences; knowledge, such as an awareness of career options, understanding of sources of labor market information, or different kinds of academic knowledge; attitudes, such as positive

regard for others, initiative, and willingness to assume the consequences of one's actions; and behavior are all examples of different kinds of competencies.

In the youth employment field, there is a growing recognition among practitioners that competency-based training approaches offer an important new dimension of effective programming. This belief is mirrored in the requirement of the JTPA that competency levels of youth be assessed, and that the specific kinds of competencies against which youth are assessed be certified by Private Industry Councils within each Service Delivery Area (SDA).

Under the Job Training Partnership Act, there are several goals for programs serving youth in addition to the traditional goals of placement and retention in unsubsidized employment. One of these goals is the attainment of employment competencies recognized by the Private Industry Council; another is the completion of elementary, secondary, or postsecondary education or its equivalent; and the third is enrollment in other training programs or apprenticeships, or enlistment in the armed services. Employment competencies are suggested to be of three kinds: (1) Pre-employment and Work Maturity Competencies, (2) Basic Educational Skills Competencies, (2) Basic Educational Skills Competencies, and (3) Job Specific Skills Competencies.

Three Suggested Competency Areas:

1. PRE-EMPLOYMENT AND WORK MATURITY
2. BASIC EDUCATIONAL SKILLS
3. JOB SPECIFIC SKILLS

1. Pre-employment and Work Maturity Competencies

Competencies in this area cover basic awareness of the world of work, including awareness of one's own preferences and interests, as well as demonstrated abilities to meet employer expectations of basic entry-level employee responsibilities, such as regular attendance, ability to carry out instructions, punctuality, and so forth.

> Sample Competency: The participant understands the process of a job interview. Practice interviews will demonstrate this competency.

2. Basic Education Skills Competencies

Basic educational competencies are the fundamental skills of reading, computation, and communication that are needed for successful functioning in the workplace; competencies in this area focus on the application of these skills to real work situations.

Sample Competency: The participant will make correct change, as demonstrated by making no more than two (2) errors on the Money section of the Key Mathematics test.

3. Job Specific Skills Competencies

This competency area covers mastery of basic and advanced skills required for a chosen occupation or cluster of occupations.

Sample Competency: The participant will frame a doorway for a house under construction, as demonstrated by an actual product sample.

Within each "competency area," specific competencies to be learned are to be set in each Service Delivery Area (SDA) in accord with the local labor market's demand.

Within a competency-based employment and training program, each participant is assessed at program entry to determine his or her level of competency attainment and deficiency. Based on the results of the assessment, services can be chosen which remedy the identified deficiencies and build upon evident strengths of the participant. It should be emphasized that assessment is not an end in itself; in order for a competency-based system to be meaningful, assessment must be tied to training and the remediation of competency deficits.

Furthermore, as the participant attains new competencies, a record certifying competency attainment can be developed which can serve as a "resume" for the participant in his or her search for a job, application to another educational institution, or enlistment into the military.

The remainder of this Guide will provide suggestions that will allow program planners and developers to get started with competency-based employability development planning. "Getting Started" may mean designing a new program from the ground up, or it may mean making adjustments to already existing modes of program planning and delivery. The suggestions and techniques contained in this Guide are not meant to imply that youth-serving programs need to be completely redesigned--yet one more time; instead the Guide tries to provide resources that can be used to make ongoing programs better.

The materials making up most of this Guide come from a diversity of sources, some or many of which may already be familiar to readers. Some readers may find the sources new and unfamiliar. For the latter, information is provided in the Resource Section which will allow you to become more familiar with organizations, agencies, and institutions which are involved with the competency-based movement.

The principal sources of most of the materials found in the guide are the following:

- the Comprehensive Youth Employment Program (CYEP) demonstration funded by the U.S. Department of Labor, 1978-1980;
- the amalgam of loosely related programs and practices that come under the heading Competency-Based Education;
- the Vocational Exploration Demonstration Program, also funded by the U.S. Department of Labor, 1978-1980;
- the career and vocational education "movements," especially Experience-Based Career Education, funded during the 1970s, and still ongoing in many places;
- the competency-based adult education movement, which resulted in a comprehensive understanding of adult literacy and the Adult Performance Level (APL) testing program;
- other individual programs such as SCATE in Springfield, MA; the HPSEAP in Hartford, CT; the Job Corps' TAR (Training Achievement Record);
- the growing use of performance-based training and staff development within the private sector.

With this broad background, one can easily imagine that competency-based employability development can be many things to many people. In many places, lack of clear definitions has prevented or at least inhibited program development. In this Guide, we will attempt to synthesize the best of these experiences in ways that are helpful to practitioners.

C. Advantages of a Competency-Based Approach

The advantages of building an employability development program around a competency-based approach are considerable. While the specific outcomes outlined below cannot be promised, they are at least intended to provide the reader with some indication of what is possible, what other practitioners have found, and what some reasons for giving the matter careful attention might be.

1. A competency-based approach can readily identify and address individual needs. Because assessment is targeted on the individual, and because services may be provided which specifically address skill needs as revealed by an assessment, individual needs are consistently the focus of program activities.

2. This approach fosters achievement by providing specific, attainable objectives which can be measured in terms that are clear both to the participant and to program staff.

3. A competency-based approach frequently increases motivation and interest in participation in services. Youth (and most adults as well) tend to respond positively to situations in which learning is determined by demonstration of a skill, rather than by length of time one has been in classroom or work situation.

4. A competency-based approach provides for a more realistic understanding of one's own skills, abilities, and preferences, since it is focused on what a person actually does.

5. Because competency-based approaches imply objective standards of achievement, they tend to have credibility both for youth and the community. Youth tend not to feel that they are victims of the whim of an unfriendly teacher or counselor.

6. Finally, competency-based approaches which are based on employer input tend to offer the individual a more realistic picture of the world of work and the job market.

Competency-based employment and training can provide a number of significant advantages to SDAs as well:

1. The chief advantage according to most practitioners who advocate competency-based employment and training is that it provides a clear picture of specific program outcomes, and it encourages the more efficient use of services available to youth.

2. The competency-based approach provides a common management framework for staff and delivery of services.

3. It allows different rates of achievement for individual youth.

4. It facilitates identification of staff development/training needs.

5. It provides for flexibility in evaluation; criteria other than placement may be used. It also allows for comparability among programs within a given SDA.

6. It increases program responsiveness to local labor market conditions and employer demands; furthermore, training is targeted to local criteria and curriculum may be developed to meet local needs.

7. Finally, competency-based employment and training increases credibility of JTPA programs and services with employers.

Summary

Competency-based employment and training offers an opportunity to help youth learn skills which employers themselves are looking for in entry level employees. Implementing competency-based programs may not require significant revision of SDA activities; however, it does provide for important new roles to be played by the PIC, and it encourages careful efforts in the development of locally relevant competencies.

The next section of Part I provides a more detailed discussion of the elements of a competency-based approach as an SDA might implement it under JTPA.

D. Roles and Responsibilities

The Job Training Partnership Act, in its legislation as well as in the Department of Labor's administrative regulations and guidelines, has substantially changed the balance of authority between federal, state, and local agencies that had existed under CETA. The new relationships among governmental units reflect a shift in authority and discretion to the states, leaving the bulk of the responsibility for administration and performance evaluation to the state and local areas. This section will review the roles and responsibilities assigned to the federal, state, and local jurisdictions in the development, implementation, and administration of competency-based youth employment and training programs. In addition, it will suggest areas in which the primary responsibility for a given task or function is open to discretion at the state or local levels.

1. The Federal Role

The federal role emphasizes oversight rather than direct administration and management. In general, this oversight role consists in ensuring conformance with the legislation mandating JTPA. There are some areas, however, in which the Employment and Training Administration, U.S. Department of Labor, has interpreted the legislation in the development of regulatory guidelines. One such area is in the development of performance standards for JTPA programs; in the legislation, the mandate for competency-based youth employment and training programs is a subsection of the article concerning performance standards. The guidelines themselves are available from the U.S. Department of Labor; they will be briefly summarized here.

The federal responsibility in the development of competency-based youth programs has been to establish the minimum requirements for such a system. This includes suggesting the basic framework of the three competency areas (pre-employment and work maturity skills, basic educational skills, job specific skills).

2. The State Role

As mentioned above, the intent of the federal government is to give the individual states maximum flexibility in the implementation of JTPA, within the suggested framework. It is not the purpose of this document to summarize all those areas in which the Governor and the Governor's employment and training council have authority in the implementation and administration of JTPA programs. We will outline below some suggested roles for the development and administration of competency-based employment and training programs.

Although not a legislative requirement, the state may decide that a certain degree of consistency between SDA-developed systems is desirable in order to assure portability of competency certification among SDAs within the state or within individual labor market areas of other geographic regions served by more than one SDA. This factor is very important if a goal is employer acceptance of the competency certifications.

Also, the state should consider providing PICs with assistance in developing workable competency standards and programs that can train youth in these competencies. This assistance could include staff training, on-site consultation in considering various options, as well as development of guidelines or actual prototype systems for PICs and SDAs to use in standard setting, and selection of assessment approaches and curriculum. A variety of state resources including state discretionary funds under the education coordination set-aside and state incentives grants may be used for this purpose.

3. The Private Industry Council

The JTPA legislation states that the PIC must certify its SDAs' competency-based system as one which reflects the standards of the local community. Beyond this basic requirement, the PIC will be expected to have an extensive involvement. As we strongly suggest elsewhere in this document, the PIC, as the representative of the local employers, education and state vocational education, and community will likely take an active role in the development of competencies, benchmarks, and assessment tools for its youth programs. In particular, collaboration between the local PIC and SDA program planners is essential to assure that local employer and educational needs are continually kept in mind during the process of competency development.

In addition to reaching a consensus with SDA staff on an acceptable set of competencies, the PIC should work closely with the SDA to ensure that programs are structured to adequately support the services needed to make the competency-based system work.

4. The SDA

Although there is no legislatively mandated role for the SDA in the development of a competency-based youth employment and training system (except, of course, that it must have one in place), the SDA will most likely be left with the major task of developing and implementing such a system. The major focus of this Guide is on this task.

Section 2: Elements of Competency-Based Employment and Training

Almost all program operators have used competency-based concepts at one time or another. The fundamental concepts are quite familiar to most people, and it is realistic and feasible to modify most employment and training programs for youth so that they can take advantage of the strengths of these concepts.

Staff of CETA youth programs often used competency-based concepts informally whenever they called upon some standard against which the performance of the CETA participant was measured. For example, if a participant was required to have a high school diploma or achieve a specific educational level, the standard was specific, public, and measurable, and thus quite consistent with the competency-based approach. When a worksite supervisor would require a trainee to report to work on time 90 percent of the days the trainee was scheduled to work, a specific standard for performance was also established. While these practices were consistent with a competency-based approach, they were often applied inconsistently to the variety of youth programs developed by a single prime sponsor, and they frequently were not based on a carefully planned assessment of participant and employer needs. Consequently the effectiveness of the approach for youth was somewhat diminished. It is the hope of those involved with the development of the JTPA legislation, as well as the hope of the developers of this Guide, that SDA staff will recognize the need to implement explicit, formal, and consistent application of competency-based approaches.

We have already looked quickly at the three competency areas; let us now take a closer look at the components of a competency-based system as they might be found in a youth employability development program.

COMPETENCY STATEMENTS

Consider the competency statement on the next page:

Competency Area: PREEMPLOYMENT AND WORK MATURITY

The participant will demonstrate an acceptable attendance pattern

by showing up on time nine days out of ten on his/her try-out employment placement

INDICATOR (OBJECTIVE) as measured by employer attendance reports.

Fig. 1: Sample Competency Statement

In compentency statement above, the following elements are shown. First, the statement is in the general competency area of preemployment and work maturity. Second, there is a specific, observable behavior that is expected of the participant. In the CETA programs (especially the Consolidated Youth Employment Program [CYEP]) where many of these concepts were first tried out in an organized fashion, this specific, observable behavior tended to be called a competency indicator. That terminology will be retained in this document. Within a competency-based approach, a global competency area is seen to be made up of a collection of indicators which local employers believe to be critical to success in the workplace.

COMPETENCY INDICATORS

The third element in the competency statement shown above is referred to in the diagram as a benchmark. The term benchmark emerged from early discussions of how to make employability skills measurable. In order for an indicator to be verifiable, it must be associated with a measurable standard of some kind.

BENCHMARKS

ASSESSMENT

The fourth and final element concerns assessment. It is not enough to describe a measurable indicator unless there is some process for assessment that is also available. As a practical example, many youth programs encourage participants to develop the skill of making a positive impression on other people. At the same time, program planners are keenly aware of the lack of measurement instruments which can be used to determine whether a favorable impression is being made. In spite of these obstacles, planners need to be imaginative in developing a measure, whether direct or indirect, which can be used. Otherwise, assessment of the participant is left essentially to chance--and the entire purpose of the competency-based system is thwarted.

From the foregoing discussion, one can see how a competency statement could be developed for each of the three competency areas. Furthermore, for some indicators there may be more than one standard that is appropriate, given the stage of development of the youth.

SERVICES

From competency statements, which consist of indicators, benchmarks, and assessment mechanisms, we may now move to the substance of a competency-based system, namely, the services that are provided in response to needs revealed in an assessment.

Services which are available to youth should be related to assessment results. If assessment of a young person's background and skills shows that he or she is unable to perform simple numerical calculations, the young person should be afforded an opportunity to learn arithmetic skills. Services should also be designed to enhance strengths, as in the cases involving handicapped youth where it might be pointless to try to remediate certain handicaps.

CREDENTIALS; CERTIFICATION

The final component to be discussed in this Guide concerns credentials and certification.

Certification documents a young person's achievement according to a uniform set of competencies, indicators, and benchmarks designed to enable the youth to successfully enter and compete in the labor market. As the youth gains

documentable competencies, it is clear that he or she is building a resume for the job search effort.

It stands to reason that if programs in a particular SDA are addressing educational or occupational skill areas for which established credentials exist (e.g., high school diploma or GED; apprenticeship certificate, etc.), design of the system should focus on indicators and benchmarks which lead to those credentials.

In other competency areas where there are not existing credentialling systems, programs should attempt to establish the validity of their systems so that they too will be accepted and used by prospective employers and educational institutions.

ASSESSMENT
↓
SERVICES
↓
REASSESSMENT
↓
CERTIFICATION

Summary

The key components of competency-based employment and training are competency statements (consisting of competencies, indicators, and benchmarks), assessment, services, and credentials.

Part II discusses how to get started developing and implementing a competency-based employment and training system for youth. In the first section, general development steps are discussed, and in succeeding sections, suggested activities are presented.

PART II: DEVELOPING AND IMPLEMENTING A COMPETENCY-BASED EMPLOYMENT AND TRAINING SYSTEM FOR YOUTH

Section 1. General Tasks

Overview

PART II BEGINS WITH A DESCRIPTION OF 10 GENERAL TASKS ASSOCIATED WITH IMPLEMENTING A COMPETENCY-BASED EMPLOYMENT AND TRAINING PROGRAM FOR YOUTH. THIS IS FOLLOWED BY SPECIFIC SUGGESTIONS FOR DEVELOPING EACH COMPONENT OF THE COMPETENCY-BASED SYSTEM

Practitioners have accumulated sufficient experience with the implementation of new programs generally, and with competency-based programs specifically, to make certain generalizations regarding issues SDAs will face in putting JTPA into practice.

Although the specific steps will vary considerably within each of the Service Delivery Areas (SDAs), the overall design of JTPA, along with past experiences of practitioners, suggest that there are identifiable general development and implementation steps that virtually every SDA will have to address. These steps, which will each be addressed in this Guide, are listed below:

1. Selection of Target Occupations

This step is concerned with the traditional emphasis the employment and training community places on labor market information. In the context of competency-based employment and training, this is a necessary beginning step which is intended to make certain that competencies are selected which relate to industries in which jobs are likely to be available.

2. Analysis of Jobs to Determine Skills Required, Tasks Performed, Equipment Used, and Performance Standards Used in the Industry

The purpose of this step is to gather specific information about jobs. It is recommended that onsite interviews with employers and first-line supervisors be the primary method of collecting this kind of information. By designing your program to help young people learn the specific skills you identify in this step, you will be laying the groundwork for success. (There are several resources available to assist you with this task. The Technical Assistance and Training Corporation has carried out analyses of certain occupations, and the version of Experience-Based Career Education Program developed by the Northwest

Regional Educational Laboratory has developed an intensive Learning Site Analysis process which can be adapted to assist SDA staff).

3. Develop Competency Statements for Each Competency Area

This step is perhaps the most important one in the process, for it is the one in which information about specific jobs will be translated into specific competencies which young people will be expected to master and which the services of your program will be aimed at fostering.

4. Develop Benchmarks (Appropriate Levels of Performance) for Each Competency Statement

Normally this step will be carried out as part of the process of developing competency statements. It is included here both to underscore its importance and to make explicit the need for carrying it out.

5. Design or Adapt an Assessment Strategy

The development of an effective assessment strategy involves determining what methods of assessment are available for identified competencies, and then determining which among available methods are desirable for your situation. The intent of this step is to encourage SDA planners to make every effort to choose assessment strategies and methods which are consistent with and relate to the competencies youth need for employment. The point is simple to state, but sometimes difficult to carry out in practice. As will be more thoroughly discussed below, the occasional lack of appropriate instruments, lack of instrumentation, variations among SDA goals and purposes, lack of trained staff, and lack of experience all conspire against successful assessment. Nevertheless, the outlook is not completely bleak; there are some existing assessment instruments which have been used successfully in youth employment and training programs. SDA staff who put time and effort into designing or adapting an assessment strategy to measure competency attainment will find it well worth the investment.

6. Validate Competency Statements and Benchmarks

This step will ensure that the intentions and expectations of local employers are being met within the competency development process.

7. Analyze Services to Determine Whether They Need to Be Adapted to Support Competency Attainment

The service mix supported by the SDA need not necessarily be completely reinvented. Often just some modifications or redirections of emphasis are all that is necessary. Involvement of services deliverers (program operators) in the competency development process may not only be the source of good ideas, it may also be the key to targeting services on the attainment of competencies. The main point here is that a competency-based system allows the service mix to be tailored to individual needs. Participants should only get the services they need and should progress within a system tied to the attainment of clearly defined competencies.

8. Develop Appropriate Documentation and Certification Systems

The potential of a competency-based approach for helping youth acquire a credential that has real meaning--both to the youth and to a potential employer--should not be ignored. Planning documents such as an Employability Development Plan are extremely useful in helping the youth track his or her progress. A certificate or credential is not only an excellent motivator; it also can be designed to contain information of direct relevance to employers, or to other personnel in institutions where the youth may choose to continue his or her training. This idea is not new to the employment and training community; the GED, for example, is one such credential.

9. Inform People and Communicate Widely

Throughout the process of developing and implementing your plan, you should keep people informed and communicate the results of your efforts. People who know about the effort are likely to participate in it; agencies with which your SDA is already involved--or agencies you would like to become more involved with--should be contacted on a regular basis. Competency-based employment and training can provide an especially effective vehicle for collaborating with schools.

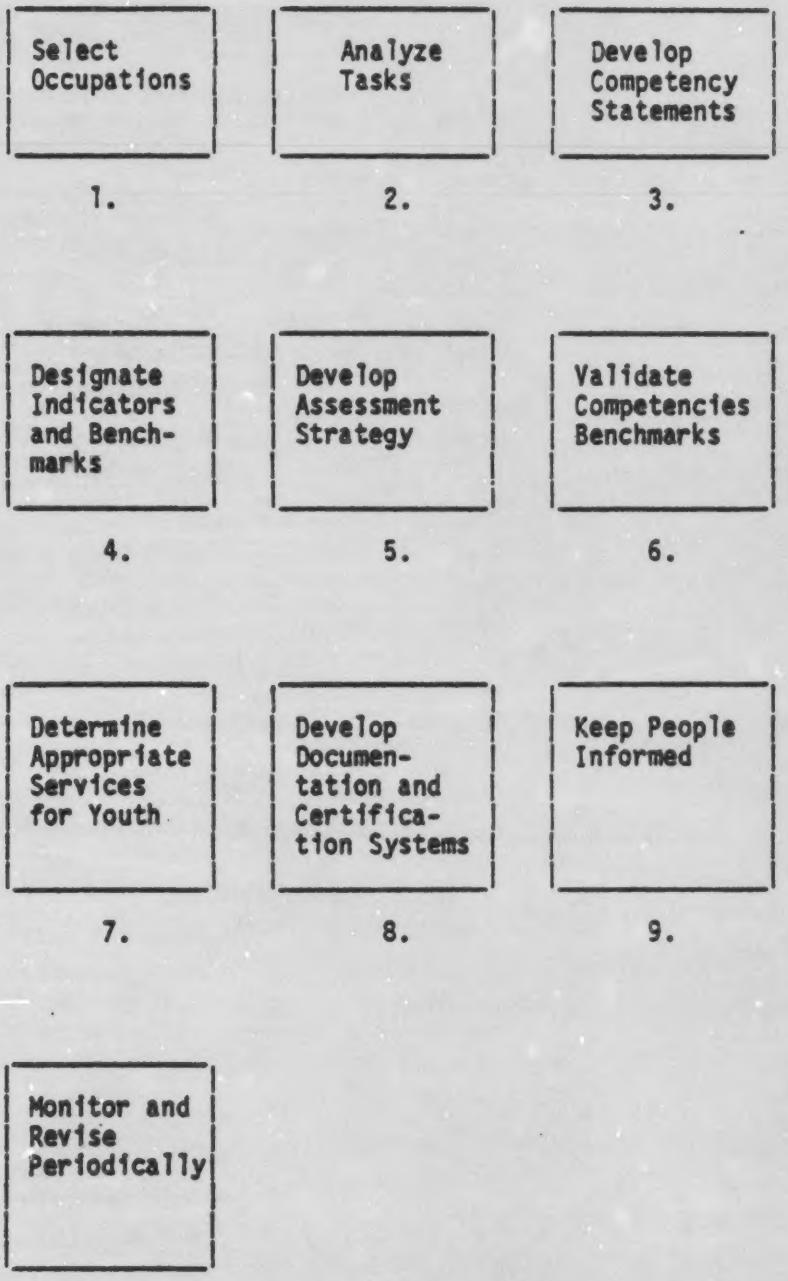
10. Monitor the System and Revise It Periodically

The experience of CYEP and other demonstrations of competency-based systems showed that fully-developed models for implementation simply do not

exist. As a result each program is of some extent opening new ground. The need, therefore, is critical for careful monitoring to determine whether the program is meeting its intended goals. Moreover the changing employment picture in many communities will necessitate revising and changing competencies--sometimes frequently. Nonetheless, the kinds of revisions that will need to be made will most likely not be earthshaking. They will instead be refinements, additions, and program redirections.

Summary

The chart below summarizes these ten steps which most SDAs may wish to follow in implementing competency-based employment and training for youth.



The next sections of Part II suggest in greater detail how to accomplish these tasks.

Section 2: Getting Specific

Overview

Section 2 discusses suggested activities for specific tasks involved in putting the elements of competency-based employment and training into place. This section is in five parts: Part A presents information about developing competency statements. Part B provides information about developing indicators and benchmarks. In Part C, material on assessment is presented; and Part D describes individualized planning as the mechanism for targeting services on the attainment of identified competencies. Finally, Part E discusses ways of certifying individual achievements.

A. Determining Local Employer Standards

ROLE OF PRIVATE INDUSTRY COUNCIL

The JTPA places substantial emphasis on both the establishment of standards for youth and the relevance of those standards to the local situation. While broad guidelines may be expected from the national office of the Department of Labor and the states, the clear intention of the legislation is that setting standards for employability in a service delivery area should be a state and local responsibility.

In practice this means that Service Delivery Area staff will generally need to work very closely with their Private Industry Councils, which have the legislative mandate to review and approve SDA plans.

WAYS OF WORKING WITH THE PIC

There are of course many possible roles to be played by the PICs. The PIC may be the appropriate institution for establishing initial contacts with the business community in the development of local employer standards. In some cases, PIC members will take an active role in the design and development of competency-based employment and training. In other cases, their role will be one of policy formulation and oversight. At a minimum, the PIC will have the responsibility of signing off on an SDA's plan for providing competency training.

Experience with the Consolidated Youth Employment Program (CYEP) demonstration showed that the best results were obtained when prime sponsor staff were able to establish individual contacts with employers. As a rule it was not effective to attempt to develop competency statements "in committee."

GENERATING EMPLOYER INVOLVEMENT

Meaningful employer involvement can be generated if the following conditions can be met:

- Employers need to understand the purpose and the reasons for their involvement; otherwise they will not contribute their time to the effort.
- They also need to believe that participation is in their own best interest. This creates an incentive for the business community to join with SDAs in a meaningful, and not merely symbolic, way.
- Intermediary organizations such as the Chamber of Commerce can play a critical role in generating employer involvement.
- Clear expectations for all participants, as well as stated and realistic time commitments will also enhance involvement.
- Demonstrating the concept of partnership will encourage and motivate all participants. Private sector participants should be aware of participation on the part of representatives of educational institutions (and vice versa).

For most SDAs, it is reasonable to expect that the Private Industry Council (PIC) will be in a key position to facilitate cooperation and communication with employers. Given the expectation that private sector representatives on the PIC will be company executives or senior staff, it is probably unlikely that the PIC will actually develop competency statements. The actual work of competency development should be a clearly assigned task--either to an individual, to a consultant, or to a task group. The PIC then might support the effort in these kinds of ways:

- Suggesting businesses/industries which should be contacted for information or assistance.
- Enlisting cooperation through letters to company executives, business owners, personnel officers, and others.
- Offering suggestions for improving the process.

With advice and assistance from the PIC, a process can be developed to determine the competencies employers feel are critical for youth to have in order to succeed in entry-level employment.

FINDING OUT EMPLOYERS' VIEWS ABOUT CRITICAL COMPETENCIES FOR YOUTH

It is strongly suggested that a survey of employers be carried out in order to identify these competencies. The reason for this is that surveying employers will more likely assure that the competency list actually reflects local conditions, preferences, and practices.

The two most frequently used methods for surveying employers are mail-out surveys and telephone or in-person interviews. Mail-out surveys can be effective if there is strong PIC support. However, some of the CYEP demonstration sites had poor success with mail-out surveys and consequently SDAs employing this method should be especially careful to plan an effective survey strategy.

Telephone or in-person interviews offer the advantage of quick results. The disadvantages, of course, are that scheduling may be a problem, and interviews require a substantial amount of staff time, both on the part of the SDA and on the part of the employer. Again, careful planning can minimize the amount of time that is needed.

ISSUES AND SUGGESTED STRATEGIES

The following is a set of suggestions for dealing with issues that are likely to be commonly faced by SDAs in working with employers to determine the locally relevant competencies for employment.

1. Develop a clear statement of the purposes, goals, and objectives of a competency-based system of employment and training for youth. This will allow you to communicate your program to a variety of audiences.

2. Analyze the industries and occupations in your Service Delivery Area. This step is one with which most SDA staffs will have had considerable experience. The idea of analyzing the entry level requirements of jobs into specific, measurable competencies may be new, however.

3. Choose selected occupations for further study. Your choices should be based on some appropriate criteria, such as:

- size of work force
- rate of growth
- geographic location within service area
- importance of occupation within industry as a whole
- actual or potential labor markets for youth

4. Working with the PIC and using whatever other sources of information (e.g., the U.S. Employment Service and the state occupational information coordinating committee) are available and relevant in your area, determine a sample of employers to survey. The size of the sample will vary by area, of course; however you should make sure that the sample is representative.

5. Develop a survey strategy. Whether you use a mail-out survey or interviews, you should be aware that the contact with employers established in this step will be very important for future relationships with those employers. You should probably pay attention to the opportunities for such things as:

- establishing program visibility
- developing a future "market" for participants
- soliciting employer involvement in many aspects of program operation

Regardless of the method you use for data gathering (survey or interview), it is important to develop a plan for gathering data and instrumentation (forms or interview schedules) to use in the process.

Some suggestions for kinds of data to gather might be:

- types of occupations
- functions and tasks performed by workers in each occupation
- statements of specific abilities, knowledge, and skills required for each function
- statements of desirable aptitudes, personal traits

- where appropriate, the level of proficiency required for each ability, skill, or level of knowledge (e.g., eighth grade reading level or typing at 60 wpm)
- informal standards of performance or proficiency applied to the worker
- equipment, machinery, hardware and/or software used by worker; standards of proficiency
- other hiring requirements

There are of course numerous other questions that you could ask; however you should try to keep the interview or survey as brief as possible, while at the same time making sure that all needed information is obtained.

6. Review and analyze the data that are gathered. Categorize the data in terms of competencies related to the three competency areas:

- preemployment and work maturity
- basic skills
- vocational skills

It might be useful at this point to review the preliminary list with the PIC and enlist their guidance in prioritizing and selecting specific competencies for further development.

7. Plan for the next activity which involves using the information you have gathered to develop explicit competency statements that include indicators and benchmarks.

EXAMPLE LIST OF COMPETENCIES

A list of competencies that can be used as an example is presented below. This is not a complete list; however, it is presented to give those new to the concept of competency-based employment and training an idea of what a competency set might look like. It should be noted that anyone expecting to use such a list would need to add indicters and benchmarks as well as a method of assessment in order to do so.

I. Pre-Employment and Work Maturity Competencies

The participant . . .

A. Understands major conditions and factors influencing successful job experiences increasing job effectiveness.

B. Identifies career goals and how to achieve them based on personal and labor market information.

C. Has accurate knowledge of his or her own values, interests, and aptitudes.

D. Shows responsibility and dependability in carrying out assigned tasks.

E. Accepts guidance, criticism, and assignments from supervisor.

F. Shows willingness to work and develop more advanced skills.

G. Maintains constructive and proper relationships with other workers.

H. Plans and organizes his or her job responsibilities.

I. Demonstrates the ability to send clear messages and is able to correctly understand the messages of others.

II. Basic Educational Skills Competencies

The participant . . .

A. Demonstrates mathematical skills.

B. Speaks, reads, writes English at levels commensurate with age, schooling, and cultural environment.

C. Achieves educational promotions through the 12th grade and continues preparation toward the level required by occupational target(s).

III. Job Specific Skills Competencies

The participant . . .

A. Demonstrates skills required for entry-level employment in a given industry or for a chosen career.

Summary

The first set of tasks facing an SDA is to develop a statement of the competencies that local employers feel are necessary for youth to succeed in the job market. These competencies also should include those skills needed to enable the youth to continue formal education and training or to enter the military. The competency list should be an accurate reflection of the practices of local employers. The Private Industry Council (PIC) can provide an effective point of entry for contacts with employers.

The set of competencies that will emerge from this set of activities will not necessarily be refined--and that is the next task.

B. Developing Indicators and Benchmarks

Overview

The previous section discussed ways of working with local employers to identify competencies needed for successful entry into the local labor market. In this section, we turn to the task of using those identified competencies to build a set of competency indicators and benchmarks which will be the focus of programmatic activities for youth.

BENCHMARK DEVELOPMENT; ASSESSMENT

Before actually carrying out any of the activities suggested in this section, readers might wish to consult the next section, dealing with the assessment of levels of competency. The reason for this is that choosing competencies and choosing appropriate methods of competency assessment are interdependent activities. For purposes of clarity and organization, this document presents these two activities in successive sections. In practice, however, involved persons will need to be thinking about competency indicators, benchmarks, and assessment more or less simultaneously.

Review of Terminology

Before discussing actual steps, a brief review of terminology may be helpful. Under the Job Training Partnership Act, there are several goals for programs serving youth in addition to the traditional goals of placement and retention in unsubsidized employment. The first goal is the attainment of employment competencies recognized by the Private Industry Council; the second is the completion of elementary, secondary, or postsecondary education or its equivalent; and the third is enrollment in other training programs or apprenticeships, or enlistment in the armed services. Employment competencies are of three

COMPETENCY AREAS

kinds, as has been discussed earlier: (1) Pre-employment and Work Maturity Competencies, (2) Basic Educational Skills Competencies, and (3) Job Specific Skills Competencies.

Within each of these three areas, one may specify skills, knowledge, attitudes, and behaviors that participants are expected to demonstrate.

COMPETENCIES

Competencies result from the question, "What are the main skills, knowledge, attitudes, and behavior that a young person should have in order to successfully enter and stay in the work force in this particular community or area?" In general,

the answer to this question will be the result of close consultation with the Private Industry Council and a broad cross-section of local employers. Competencies are most useful if they are presented in clear, brief, and simple language, as in the following examples:

> Participants will demonstrate dependability.

> Participants will demonstrate appropriate work attitudes

> Participants will know sources of labor market information

But just stating that it is desirable for participants to "demonstrate dependability" can lead to difficulties. People demonstrate dependability in many different ways, and one person's definition may not be the same as another's. We have all encountered instances where counselors and employers have diametrically opposed views as to whether a young person is "dependable." It is necessary to generate agreement about what is meant by each competency, and one way to do this is to make sure that the statement of each competency includes an indicator which can show literally anyone what a person with that competency is able to do.

INDICATORS

Competency indicators define the specific behaviors that demonstrate development of a competency. For example, under the competency "Demonstrating career awareness," a participant might exhibit any of the following behaviors:

- naming careers available in the community
- describing careers of interest

- attending career fairs
- taking a career education class

Of course many other behaviors could be acceptable as indicators that the given competency had been attained. The point to remember is that a competency indicator describes observable and measurable behaviors which your program (and by extension the surrounding labor market area) will accept as evidence that the competency has been attained.

But even with clearly described indicators, it is important to agree on a measure of the degree to which the competency is to be demonstrated. For instance, a young person might indeed demonstrate dependability by showing up on time--but the competency statement is not very useful until we add a number or percentage that tells us how many times the participant is allowed to be late, e.g., participants will demonstrate dependability by showing up on time 80 percent of the days he or she is enrolled.

BENCHMARKS

The part of a competency statement that shows the extent to which the participant is expected to demonstrate a behavior is usually called a benchmark.

Using the three simple indicators above, samples of the benchmarks associated with them might be as follows:

- naming five careers available in the community
- gathering information about three careers at a local career fair
- achieving a passing grade in a ninth grade career education class.

You have probably begun to wonder whether you need to establish many different indicators and benchmarks for each competency. Most practitioners advise that doing so is a good idea because different youth may be at different levels of development. A gradation of benchmarks on the way toward competency attainment will clarify the specific goals expected of program participants, will serve to measure individual progress, and will establish a system of intermediate successes for the individual participant.

UNIQUE NATURE OF BENCHMARK DEVELOPMENT IN EACH SDA

This development of benchmarks and indicators is a process which will very considerably from service delivery area to service delivery area. If you have conducted a survey of employers to identify competencies, it may be best for SDA staff or task forces to do the work of refining the competencies to eliminate redundancies, and to make sure that each competency includes a clear indicator and benchmark.

In some service delivery areas, there may be employers who want to play a strong role in this refinement process. Also, the role of the PIC may vary from substantial involvement to advice and oversight, in addition to the mandated role of approving competencies.

Getting Started

A number of resources may exist in your area to help you with the task of refining your competency list and developing indicators and benchmarks. Listed below are some of the ways practitioners have approached the task:

1. As mentioned above, a task force of SDA staff could take on the job. The task force should be carefully selected in order to include people who have a good knowledge of the community, because there will be many occasions when special expertise will be needed. The local or state vocational education system will likely be a valuable resource.

2. A task force with wider membership, including people outside the actual service delivery agency, could also be appointed. Such a task force could be appointed by a PIC or a subgroup of the PIC.

3. Consultants and others in the community with special expertise in competency-based approaches to skill development could be retained for the task of developing indicators and benchmarks.

Regardless of the specific methodology you choose, the following suggested activities may be appropriate.

SUGGESTIONS FOR SUCCESSFUL COMPETENCY DEVELOPMENT

1. Remember to include assessment in the process of developing indicators and benchmarks. Task forces should include those familiar with assessment procedures and instruments. Consultants should thoroughly understand the role of assessment as well. It is a great time saver, and it will

contribute to the overall efficiency of your program if, while you are developing indicators, you ask, "How will this indicator be measured?"

2. Review the results of the survey of employers (assuming that one has been carried out). These survey results may contain some good ideas about what employers regard as acceptable indicators and levels of proficiency for the local community. Any information those employers provided regarding entry-level hiring requirements will be useful.

3. Develop each competency separately, making sure it reflects practices and requirements operating in the community.

As an example, most employers in one area might hire beginning typists only if they can type 55 wpm or more. You might build competency statements with this information as follows:

COMPETENCY AREA	JOB SPECIFIC SKILLS
COMPETENCY	PARTICIPANTS WILL DEMONSTRATE ACCEPTABLE OFFICE SKILLS
COMPETENCY INDICATOR	BY TYPING
BENCHMARK	55 WORDS PER MINUTE ON A STANDARD TYPING TEST

You may wish to examine the "Starter list" of competencies at the end of the previous section to get practice in thinking about appropriate indicators and benchmarks and to make some preliminary decisions about their relevance for your community.

4. Check to see whether your competency list, including benchmarks and indicators, accurately reflects requirements and practices in your community. You may want to circulate a draft among employers, and/or you may need to get PIC input before you present the final version to the PIC for approval. Some suggested criteria, developed from the experiences of other practitioners, appear below:

Criteria for Competencies

1. Comprehensiveness: Does the set of competencies include all of the general behaviors that youth need for entry into the

work force (or enrollment for further education or enlistment in the military)?

2. Manageability: can youth realistically attain the competencies, and can the competencies be attained with available resources?

3. Importance: does each competency that is included describe an important skill, knowledge, or attitude related to the goal of the program?

4. Clarity: is the general behavior described clearly? Will people understand what is meant by the competency? Will different people understand it in a consistent way?

5. Freedom from Stereotyping: is the competency free of wording suggesting that some social, occupational, or life roles should be valued more than others? Is the competency applicable across lines of sex, socio-economic status, race, rural and urban settings, and religious persuasions in your community?

Criteria for Indicators

1. Comprehensiveness: do indicators provide a range of skills, attitudes, knowledge, and behaviors youth can use to demonstrate competencies? Can youth demonstrate a competency in more than one way?

2. Manageability: can the indicators be demonstrated using current resources?

3. Importance: is each indicator important? Does each indicator describe a skill, attitude, knowledge, or behavior that is critical for success in the world of work?

4. Clarity: is each indicator clearly stated so that youth, employers, and others will know what skill, knowledge, attitude, or behavior is being described?

5. Freedom from Stereotyping: is each indicator free of wording suggesting sexual, racial, or socio-economic stereotypes?

6. Measurability: is it possible to set a benchmark on the indicator; can an assessment approach and measurement device be found or developed?

Criteria for Benchmarks

1. Is the standard of performance that is expected clear and unambiguous?

2. Is each benchmark acceptable to employers?

3. Does each benchmark set a level of performance that is attainable by participants?

4. Can the achievement of each benchmark be measured?

5. Does the program provide a real opportunity for participants to attain benchmarks?

Questions and Issues

Numerous questions will arise in the process of developing competency statements to which neither the JTPA legislation nor accompanying regulations directly speak. These omissions are purposeful, however, for they represent areas in which it is the responsibility of the local jurisdiction to set standards. Some of the questions are these:

1. How many competencies should be in each competency area?

NUMBER OF COMPETENCIES

There is, of course, no absolute number. The number of competencies depends on the skills that are needed for entry level employment in your community. The list should be workable; probably not every single competency needs to be listed--no more than the employer would require for the perfect employee--but the most important competencies should be included.

2. Does each youth have to complete each competency?

ATTAINMENT OF COMPETENCIES

In general, the intent of the program is for youth to develop the competencies needed for entry into the work force, continuing education or training, or enlistment in the military. It should be emphasized that while participants ought to exhibit competence in each area, some participants will enter the program having already attained some of the required competencies. Programs should only seek to remedy demonstrable deficits in competence.

3. Different employers seem to have different requirements for their employees. How do you determine what is acceptable?

STANDARDS

In most cases it will not be difficult to generate consensus around acceptable benchmarks. The key point here is to get information from employers that will allow you to develop a program that meets employer needs, so that when youth seek a job, they will be able to say, "See, I can demonstrate the skills you yourself have said are important."

4. This seems to be a paper-oriented process. Is there some way to keep the paper blizzard manageable?

RECORD-KEEPING

Competency-based employment and training need not be overly paper-oriented at all. Careful development of only those forms that are needed, carefully refined competency lists that reflect critical competencies, and use of technologies such as microcomputers can all keep paperwork at a manageable level.

5. How does one deal with the situation in which the employment picture is constantly changing? Do you still use the same competencies and benchmarks?

THE CHANGING LABOR MARKET

Part of the plan for developing competencies should include a process for revision and updating. Conditions may change in a given community, and you may find for unexpected reasons that a certain competency is not important, or that it is too expensive to deal with.

Summary

This section has presented suggestions for refining a competency list into a manageable form that can be used in your program.

The next section discusses assessment, which should be under consideration during the process of setting indicators and benchmarks.

C. Assessment and Measurement of Competencies

Overview

Competency-based employment and training offers an opportunity to integrate assessment and measurement into other program activities in a way that can almost completely eliminate traditional concerns with the assessment process.

PLAN EARLY FOR ASSESSMENT

One key to using assessment successfully is to plan for it early. As the previous section suggested, planning for assessment should begin at the time competency indicators and benchmarks are developed. The question "How should this competency be measured?" should be asked at that time, and if there is no way of measuring the competency, then it should be discarded from your program.

This section is intended to provide an overview of the chief issues involved in weaving assessment into competency-based employment and training programs for youth. Many questions of technical interest are barely touched on here, although the resources listed at the end of this Guide include references for those who would like to pursue these questions further.

Introduction to Assessment in Competency-Based Employment and Training

FUNCTION OF ASSESSMENT

In the past, one of the chief problems with assessment was that there was only a loose connection between assessment activities and skills that a youth attained as a result of his or her participation in an employment and training program. Moreover, some practitioners were frustrated by the enormous numbers of tests and measurement instruments, and others were impatient with the time it took to carry out many kinds of assessment.

Nearly all these problems can be circumvented, or at least diminished, by understanding the function of assessment in a competency-based employment and training program, which is to determine a program participant's need or readiness for further training or employment experiences.

ASSESSMENT PROVIDES DATA FOR DECISIONS ABOUT PARTICIPANTS

Assessment and testing are not done simply for their own sake, but instead every assessment activity is undertaken to help reach a decision about the participant: has the participant

achieved a ninth-grade reading level? Is the participant ready for an unsubsidized employment? What is the appropriate assignment for the participant in our program?

If it is not clear what decision is being made, then assessment should probably not be done. In assessment, as in any other information-gathering activity, two cardinal rules are:

- Specify a purpose for each item of information to be gathered.
- Do not gather any information for which you have no purpose.

In the figure below, some samples are shown which specify measures (and indicators) as they might be tied with certain competencies. Note that both locally developed measures (an employer rating form) and standardized measures are used (the Pre-employment Knowledge Questionnaire). Also, previously generated documentation (a letter from a previous employer) is also used. Indicators are also provided--within JTPA such indicators are always generated locally.

Competency & Indicator	Benchmark	Measure
Understands major conditions and factors influencing successful job experiences and increasing job effectiveness	32 of 43 correct responses	Pre-employment Knowledge Questionnaire
The participant will demonstrate the appropriate appearance on the job as determined by the worksite dress code.	Rating of satisfactory or above for 300 of 330 hours	Employer rating form OR letter from previous employer

Fig. 2: Sample Assessment Measures

LIMITATIONS OF ASSESSMENT

In thinking about assessment, it is important to keep in mind that no assessment instrument gives perfectly accurate information on the level and nature of an individual's competency. This is particularly true for individuals whose competency level is borderline. Whenever possible, assessment data should be supplemented with other kinds of available information, such as in-program behavior or performance.

Assessment is frequently carried out by means of various kinds of paper and pencil tests. However, there is no reason to assume that just because an assessment is being carried out, it must involve written testing.

In fact, there are good reasons to consider alternatives to standard paper and pencil assessment techniques:

- Most traditional paper and pencil tests are similar to classroom examinations, with which many participants may have had a history of failure.
- Many paper and pencil tests have written directions at an inappropriate reading level; if directions are not understood by persons taking the test, results are meaningless.
- Individual test items may reflect unfamiliar cultural content.
- Some participants may have inadequate experience with tests of any kind, and so do not have the "test wiseness" which can influence test results.
- Many published tests will not relate clearly to competencies around which you are designing your program.

Despite these limitations, some paper and pencil tests have considerable field research and program experience behind them. The choice between developing new systems or adapting existing ones should not be made without carefully surveying existing relevant materials.

Assessment Purposes

THREE PURPOSES FOR ASSESSMENT:

- o INITIAL PLANNING
- o MONITORING
- o EXTERNAL REPORTING

In competency-based employment and training programs, assessment of competencies falls into one of three categories, each of which is intended to serve a different purpose.

1. Initial planning assessment is designed to help determine an incoming participant's level of competency so that appropriate services can be planned.

Characteristics:

- identifies participant's deficiencies in competency areas
- used by program administrators
- covers competency areas or broad competencies and assists in making decisions about placement
- varies depending on characteristics of the available program options--choice of initial assessment measures should be matched to available program options

2. Assessment for monitoring ongoing competency attainment is used to track the competencies participants are attaining, and to adjust services so that they continue to be targeted on participants' competency needs. This activity insures that assessment is tied to services and does not become merely a "testing burden" for participants.

Characteristics:

- used by instructors/trainers to make decisions about the next activity needed
- focuses on competencies at a detailed level

3. Assessment for external reporting may be used a) to make decisions about the readiness of a participant for a given job (this use of assessment is closely related to certification); and b) to make programmatic decisions.

Characteristics:

- used by employers or their representatives to determine whether a person is qualified for a job
- must be clearly tied to relevant job tasks

- needs to be well-developed in a technical sense since the consequences of the decision (whether to offer the person a job) are extremely serious

It is critical to know the purpose of an assessment before the assessment is done, since the procedures and instruments are likely to vary depending on which kind of purpose is involved.

Instruments used for initial assessments usually need to cover several competencies with little detailed information being provided on each. For example, a general reading test may be sufficient to tell a counselor that the participant does or does not need help with reading skills. The counselor may not need detailed information on specific reading skills (e.g., identifying main ideas, drawing inferences, vocabulary). However, the reading instructor may indeed need a test which gives information about the participant's ability to identify main ideas and so forth.

Assessment for external reporting needs to be clearly oriented toward the decision to be made. For instance an employer considering a specific candidate for a job may need more specific information about the candidate's reading level than that provided by a standardized reading test. The employer may need to know whether the candidate can perform reading tasks required by the specific job, for example the ability to read technical instructions related to the operation of a machine. A standardized reading test may not be appropriate for assessing this level of reading, and another assessment instrument may need to be located. In fact, however, most employers will be more interested in the simple certification of competencies, rather than in actual test scores.

Assessment Methods

A number of assessment approaches are available, but there are only a few essential differences among them. The differences concern the three basic components of any assessment:

- stimulus
- response
- scoring method

In all assessment methods, some stimulus is given to the person being assessed (e.g., a written or spoken question or instruction) which requires some kind of response (such as writing an answer to a

question, or carrying out an instruction), which is scored or rated according to some kind of established criteria (for example, answers on a written test are compared with previously established correct answers, or in the case of a mock job interview, the participant's actions may be compared with a list of desirable actions).

BASIC METHODS OF ASSESSMENT:

- OBSERVATION OF BEHAVIOR
- PRODUCT REVIEW
- ORAL OR WRITTEN QUESTIONS

The three basic methods of assessment--behavioral observation, product review, and oral or written questions--all include (or should include) the three basic components (stimulus, response, and a scoring method). These three methods are explained in detail below. Which method you choose depends on two fundamental factors: a) the nature of the competency being addressed (whether it is a skill, knowledge, or attitude); and b) whether the competency involves a process people use or a product they produce. The discussion below highlights these factors.

Method	Sample Application
Behavioral Observation	Counselor develops mock interview format to use with participant.
	Standardized checklist used to test correct operation of a machine.
Product Review	Examination of a product developed using a work sample system such as the Singer Vocational Evaluation System
	Evaluation of a writing sample using explicit criteria developed by instructor.
Questioning	Standardized paper and pencil test (e.g, Program for Assessing Youth Employability Skills [PAYES] or the General Aptitude Test Battery [GATB].
	Self-developed tests (oral or written) designed to measure various competencies.

Fig. 3: Sample Applications of Assessment Methods

Behavioral Observations

Whether a competency focuses on the application of a skill, knowledge, or attitude, the most appropriate type of assessment is frequently behavioral observation. This is particularly true if the competency relates to a "process" outcome. For example, many speaking and listening skills can only be assessed accurately by observing a person in a situation requiring demonstration of the skill. Asking people if they listen carefully is obviously a less accurate measure of their listening skills than observing them in a situation requiring listening.

Two general situations for behavioral observation exist: actual and simulated situations. Certain competencies (e.g., punctuality) can best be observed in actual situations. Was the participant punctual in actual work experience situations? In actual program situations? Others, such as interviewing, can be observed in a simulated situation. The major advantage of actual observation is that it has greater fidelity to real life. Its major disadvantage is that it does not allow the amount of control of the situation that may be necessary to assess competencies accurately. Simulated situations offer just the opposite major advantages and disadvantages. They are not as true to real life, but they allow greater control of the situation, thus improving the assessment's accuracy. Both actual and simulated situations have the disadvantage of usually being comparatively expensive to develop and time consuming to conduct.

Checklists and Rating Scales

Checklists and rating scales can be used for behavioral observation and product review assessments. They may be especially useful in assessing pre-employment and work maturity competencies.

Product Review

In many cases, the presence of skills can only be demonstrated by having the person produce a product, such as writing a report, reassembling a carburetor, or building a bookshelf. The assessment then entails use of a rating form or checklist to determine the quality of the product.

While a paper and pencil test may show whether a person has prerequisite knowledge, the product review shows whether the person can actually produce the product. For example, someone may show knowledge of correct spelling, punctuation, and structure via a multiple choice test. But not until the person actually writes (for example) a report which is reviewed against established criteria do we have confidence that he or she has adequate writing skills for a given job.

The chief disadvantage of the product review method is that many products are time consuming or expensive to produce. Also, many important competencies do not lend themselves to this approach.

Oral and Written Questions

The two basic types of oral and written question formats are (1) open-ended questions in which the respondent generates an original answer and (2) multiple choice questions in which the respondent selects from among two or more possible answers. When the person being assessed has limited reading skills (and when reading is not the skill being measured) questions can usually be given and answered orally.

Oral and written questions are best used for assessing whether people have acquired knowledge or can apply knowledge by mentally solving a problem. Questions can also be used to give an indication of attitudes and interests, but such assessment results must be very carefully interpreted. Attitudes and interests can fluctuate markedly from day to day or situation to situation. And written or oral questions of attitude and interest are not always accurately answered because people tend to "second guess" in the search for socially acceptable answers.

Open-ended and Multiple Choice Questions

Open-ended and multiple choice questions may be given either orally or in writing. The choice between oral and written forms depends on the skills or knowledge to be assessed and on the oral or written skills of the respondent.

DEVELOPING INSTRUMENTS IN-HOUSE VS. PURCHASING AVAILABLE ONES

Most Service Delivery Areas will not have the time or resources available to develop their own

assessment tools to any great extent. SDAs will need to depend on existing assessment instruments, the advantages being that such instruments are inexpensive (compared with the costs of developing one's own) and may be of high technical quality. Persons considering the use of published tests, however, should be aware that those tests may not have all the characteristics important for their particular situation. For that reason, instruments must be carefully reviewed to make sure that they will provide useful results.

CRITERIA FOR CHOOSING ASSESSMENT INSTRUMENTS

Three general categories of criteria should be used in reviewing assessment instruments: validity, usefulness, and reliability.

Validity refers to the extent to which the instrument measures the skills, knowledge, or attitudes the user intends it to measure. This is the most crucial issue in selecting an instrument. Just because the title says that an instrument measures job knowledge or reading skills does not mean it measures the ones that are important to you or are relevant to your community. Each question in the instrument should be looked at with a critical eye to determine if a person's answer to that question is truly going to help decide if the person has achieved a competency and benchmark used in your program. For example, if an instrument measures knowledge about jobs that are unavailable in your area, that will clearly not be useful to you. You may need to use the format and type of questions as a model for developing your own instrument.

Questions to ask:

1. Do the questions measure the specific competencies that need to be assessed?

2. Were the questions developed in a systematic and rigorous manner so that content is adequate and bias minimized? (Instruments may come with a manual answering this and other questions.)

3. Were scientific procedures used to screen or select items to ensure that they measure what they were designed to measure? Are the questions understandable and free of ambiguous alternative answers and too complex language?

4. Was the instrument validated using a group representative of the population with which the instrument is going to be used?

Usefulness of an instrument refers to the extent to which the instrument is suitable for the context in which it will be used. One of the most frequent reasons instruments are not found useable is that the level of reading they assume is different from that of the persons being assessed. In other cases, the method of scoring may be cumbersome, may require special equipment, or it may take longer to get results than program time constraints allow.

Questions to ask:

1. Are the questions at a suitable language level for your program participants?

2. Are instructions to the person administering the instrument clear and complete?

3. Are instructions to the respondent clear and understandable?

4. Is the instrument clearly formatted?

5. Is there a simple way for respondents to record their responses?

6. Does the instrument yield scores that are easily intepreted and appropriate for their intended use?

Reliability refers to the extent to which an instrument measures a trait consistently. Mathematical formulas exist for calculating the reliability of multiple choice instruments. In reality, no instrument is perfectly reliable, but acceptable levels are in the .70-.98 range (on a scale of 0 to 1.00). Good tests of knowledge will achieve reliabilities in the .70-.90 range. Attitudes are by their very nature less stable than "knowledge," and so their measures are less reliable.

With instruments requiring human judgment in the scoring (for instance rating forms or open-ended questions), an important form of reliability is the consistency among raters. This type of reliability must be determined locally by having two or more raters conduct a rating and then comparing the similarity of their ratings. For help with the

ways to check interrater reliability, you may want to consult an educational measurement textbook, program evaluator, research specialist, or a local college or university measurement specialist.

Questions to ask:

1. Is reported reliability for scores sufficiently high? (Consult technical manual accompanying the instrument.)

2. Are the scoring procedures clear and complete, thus ensuring reliable scores?

Examples of Published Instruments

A wide array of published instruments are summarized in the Appendix.

Common Questions about Assessment

1. Should we set up a centralized assessment system?

JTPA does not specifically address the issue of whether SDAs need to establish centralized assessment. An assessment center, however, does seem to be a logical extension of the idea that competencies are to be developed for use throughout a service delivery area. Indeed, many practitioners would encourage using centralized assessment.

2. Does assessment mean that our SDA needs to do all of it in house? Does it mean we need to either purchase existing instruments or develop our own?

The answer to both questions is, "No." SDAs should use the results of existing assessments (such as those done in schools) wherever possible to minimize duplication and save time. Of course existing assessments should only be used when they relate directly to a competency that is part of your program. Persons from agencies which normally perform assessments should be involved in the process of planning and developing your competency-based program.

3. How many times should assessment be done? Is there a danger of doing too much assessing?

The answer to this question will vary from SDA to SDA; however, in most cases assessment will be done on initial intake in order to determine goals and appropriate placement for the participant. This is the "Initial Planning" type of assessment discussed above. Then ongoing assessment needs to be done to determine whether and when competencies are being attained. Ideally a youth should have an opportunity to demonstrate a competency whenever he or she feels ready. Final assessment should be done when a youth has completed an activity--although again, ideally, an activity would not be completed until the young person had attained the competency the activity was designed to teach.

4. What about attitude measurement? Are there good instruments for measuring attitudes like "responsibility," "punctuality," and so on?

These attitudes can be measured--but paper and pencil tests are not the only way of doing so. You (and local employers) need to ask yourselves, "What does a responsible person do?" and then go on to ask, "How do we know when it is done?" You might answer, for example, "A responsible youth is one who asks a supervisor for help when it is needed." Then you might use employer reports as a source of information.

There may be many other questions you have at this time, and further technical assistance documents will likely be available to assist you.

Summary

Assessment is the means by which a program determines the initial skill level of participants in the three competency areas, and it is the way programs measure the attainment of competencies.

There is a mass of material and information on assessment, and staff can easily feel overwhelmed by the sheer amount. Locating and using only those instruments which relate to competencies of your program may save a lot of time in the long run; developing your own rating scales and observation checklists may be the key to custom-designing an assessment strategy that is truly useful. To decide which option is best requires a review of available materials and a determination of whether or not your SDA has the resources, time, and capacity to develop its own assessment instruments.

D. Focusing Program Opportunities on Competency Attainment: Individualized Planning for Employment Skills

Overview

Thus far, this Guide has discussed setting competencies, developing indicators and benchmarks that reflect competency attainment, and methods of assessment. In this section, processes will be discussed for using program opportunities--the mix of services available to young people--to foster the attainment of competencies.

The key to focusing program opportunities on individual competency needs is the concept of individualized planning for service delivery.

This is not a new concept: the matching of individual needs with training strategies has been the basis of the apprenticeship approach to skills acquisition for decades. In apprenticeship, an evaluation is made of the applicant's entering level of achievement; a curriculum of on-the-job training and related instruction is negotiated between trainer and trainee; individual achievement goals are spelled out and periodic judgments are made about the progress of the individual apprentice.

The individualized approach to service delivery in education, training, and employment was also adopted in legislation establishing the Job Corps in the early 1960s; today, mandates for written, individualized plans exist in the Work Incentive (WIN) program, the Vocational Rehabilitation Act, the Comprehensive Employment and Training Act (CETA) and the JTPA which replaces CETA, and the Education for All Handicapped Children Act, among others.

Elements of Individualized Planning

There are a number of models for individualized planning which have been developed. All of the models include these elements:

- a statement of the individual's need
- a statement of one or more goals toward which the individual is working

- a statement of services which will be provided
- a description of the method which will be used to determine whether the goal has been met.

The process of individualized planning implied by these models may be visualized as follows:

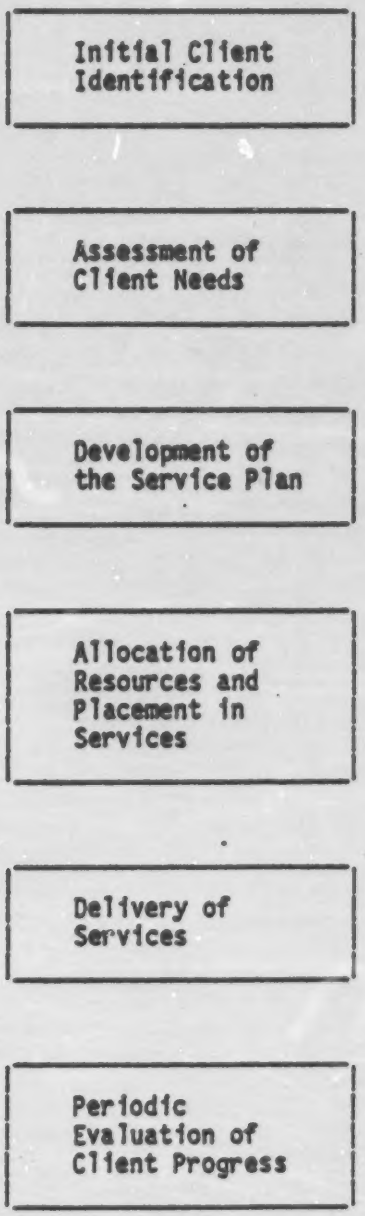

Initial Client Identification
Assessment of Client Needs
Development of the Service Plan
Allocation of Resources and Placement in Services
Delivery of Services
Periodic Evaluation of Client Progress

Fig. 4: The Planning Process for Individualized Service Delivery

For the planning phase, the match between needed and available services is considered. This phase may involve the youth, his or her parent(s) or guardian(s), and representatives of current and potential service deliverers. Goals are established for the youth, decisions are made regarding which services will be delivered, by whom, and how results will be evaluated and recognized. If necessary, interagency agreements may have to be arranged. This results in the development of the individual plan, followed by the specification of instructional and service delivery techniques and approaches. These steps may be carried out in either a very formal or an informal way, depending upon the circumstances. They can occur quickly, or over a longer period of time with the involvement of many agencies.

The outcome of the planning phase is the "road map" for the implementation of each individual's unique education and training program. Implementation involves actual delivery of the services. Because goals are clearly stated, and means of evaluation or assessment are clearly spelled out, the individualized plan is the standard against which a youth's progress is measured. Based on the results, the services being provided may be modified or adjusted to focus on the attainment of new competencies.

Contents of Individualized Plans

A number of early experiments within the CETA system featured individualized planning for youth. Perhaps the most important to consider for present purposes was the "Employability Plan and Record" (EPR) which was a mandated requirement of the Consolidated Youth Employment Program (CYEP). In most cases the EPR was a bulky document, and the processes necessary to use it were cumbersome. Nevertheless experience with the EPR taught important lessons about how to carry out comprehensive individualized planning.

An individualized planning process will normally include the following:

RECORD INITIAL ASSESSMENT RESULTS

1. a procedure for recording results of initial assessment of the participant's competency levels

DEVELOP GOAL(S) WITH PARTICIPANT
↓
AGREE ON STEPS TO REACH GOAL(S)
↓
AGREE ON METHOD OF GOAL-ATTAINMENT

2. a statement of a goal or objective towards which the participant is going to be working during participation in the program (this may be stated in terms of the competencies of your program)

3. a "prescription" describing activities which will be undertaken to bring the participant to the desired goal or competency level

4. a description of the method by means of which the attainment of the goal or competency level will be measured; this description should make clear how and when assessment will take place.

Clearly, much more information could be added to an individualized plan. The list below presents some options which you may want to consider as you go about planning:

1. Participant goals for competency development could contain statements of both long and short range goals.

2. Information about the young person's educational and work history could be included.

3. Special information relating to individual needs could be included.

4. Other data related to intake and eligibility could be included.

5. Records of activities completed and competencies attained could also be included.

In spite of the fact, however, that it may seem attractive to develop a truly comprehensive form, it is probably best to develop the simplest kind of form that still meets individual and program needs.

The sample on the next page may provide ideas to aid your planning.

SAMPLE INDIVIDUALIZED PLANNING FORM

Name of Participant_____

I. Previous Work History

II. Educational Background

III. Other Skills, Attainments

IV. Asessment Results

Pre-employment and Work Maturity

Basic Educational Skills Competencies

Job Specific Skills Competencies

V. Goal(s) for Competency Attainment

VI. Services to Be Provided

Description of Service

Duration

VII. Method of Assessment

Fig. 5: Sample Form for Individualized Planning

Naturally, the individual requirements of each SDA will result in agreements that may look quite different from the one presented above. Nevertheless, in order to function effectively within a competency-based employment and training program, the elements included above should be evident.

Advantages for the Service Delivery System

INDIVIDUALIZED PLANNING CAN YIELD ORGANIZED INFORMATION FOR THE SDA

In addition to being viewed at the level of the individual, the figure above can also be viewed at the level of the service delivery system--the

"macro" level. What is striking at this level is the utility of individualized service delivery as a tool for organizing information for decision-making regarding resource allocation, i.e., for designing an integrated and comprehensive delivery system.

The information which can be gathered, for example, from the client identification and assessment stages of individual plan development yields a picture of who is receiving services, where the services are being received, and the needs that these persons have. This data can be analyzed against aggregate statistical data on demographics and needs to see if services are appropriately targeted, or if there exists a significant incidence of underservice to any particular client group or any particular geographic area.

The development of individual service plans based on assessment of client needs forces one to look around the community to identify what services are available and which agencies deliver them. Such an exercise is a good way to identify gaps (and duplication) in the continuum of services.

Measuring the progress of individual clients against goals set for them can give an SDA a firm basis for evaluating the adequacy, quality, and effect of various programs. It also helps determine what works best under differing conditions, thus minimizing the possibility of inappropriate placements and wasted resources.

Suggested Activities

SDA staff faced with limited resources may well fear that individualized planning will be too time-consuming, too expensive, and that the paperwork will be overwhelming. These dangers are real if the process is not carefully implemented. The following strategies are aimed at cutting down on planning time, reducing the burden of paperwork, and making more efficient use of resources.

1. Build staff awareness of individualized planning

The concept should be an integral part of the competency-based employment and training strategy. The relationship of assessment to individualized planning should be clear, and the relationship of plans to services and ongoing assessment is a fundamental concept for which staff charged with carrying out the program need "buy-in."

2. Develop functional forms for use in your program.

   - A format should be designed that takes into account the ways in which assessment data are reported for participants in your program.

   - The format should be designed so as to collect information that can eventually be used to develop a "profile" or transcript of the skills, knowledge, and experiences the participant gained as a result of participation in the program. Employers find these credentials quite useful.

   - The format should enable easy collection of information that will be necessary for program planning and evaluation activities.

   - You may be able to design forms that will provide periodic caseload management signals indicating the need for progress monitoring and program updating activities. This has been designed into the Job Corps computer management system for Employability Development Plans (EDPs).

   - Specific provisions for evaluation should be built into the individualized plan. This helps the participant know both what is being expected of him/her, and how to demonstrate those expectations.

3. Consider the use of electronic data processing.

The tasks of storing, retrieving, and updating individual planning documents, and the tasks of gathering, aggregating, and reporting data from a collection of documents are all time-consuming. It is possible to use computers to collect and maintain longitudinal information on an individual's competency development plan, to reduce the amount of time required to complete and maintain program information, to assist in the development of extensive and complicated reports and to carry out applied research. As the costs of computer hardware continues to fall and the quality and availability of computer software increases, computers become an increasingly attractive option for service delivery agents. While the scope of this document does not permit a lengthy investigation of the pros and cons of computer use,

it should be pointed out that individualized planning can fit well with SDAs' plans for acquiring and using computers.

Summary

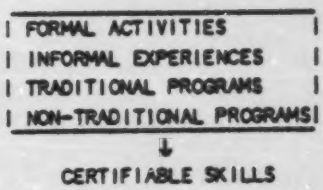
A competency-based employment and training system implies individualized planning to the extent that each individual will have a unique set of competency needs. Use of a careful planning process provides help to the participant by making goals, activities, and assessment explicit; at the same time, the SDA benefits from individualizing planning as well. Data can readily be gathered on numerous aspects of program operation using aggregated information from individualized plans. With this data, program activities can be modified, improvements can be made, and information about the program can be disseminated to a variety of audiences.

The next section will investigate how individualized plans may form the basis for certifying the accomplishments of program participants.

E. Recording Ongoing Competency Attainment

CERTIFICATION; A KEY CONCEPT IN EMPLOYABILITY DEVELOPMENT

Although programs for training and skill development exist at many levels--the classroom, apprenticeship programs, employee upgrade training, vocational education, the military service, to name only the most obvious--many young people still suffer significant problems in entering the work force. They do not complete high school and they do not gain adequate skills or credentials from the programs that are offered. While many youth may gain work experience while still in school, other youth do not have the opportunity either to work or to go to school. As a result, too many young people appear at a potential employer's doorstep lacking personal credibility, uncertified, ill-prepared to meet the increasingly high skill demands of the economy, and seemingly a poor risk as a new hire.



Within the competency-based approach that is a part of the Job Training Partnership Act (JTPA), the opportunity exists for youth to develop a simple, useful credential which can be presented to employers and others needing to know the competency level of a young person. Such a credential can be used to certify the possession of competencies which may have been acquired in a variety of ways, both formal and informal. Competencies which may have been gained through participation in traditional and non-traditional programs may be summarized in a credential that provides a measure of standardization for what may have been an extremely diverse set of experiences.

Indeed, young people who have become disillusioned with traditional educational offerings may have acquired their competence in a great variety of ways. Regardless of how a skill has been obtained, competencies can be recognized and be made part of the youth's record if they can be demonstrated via the assessment process.

Even among youth who have been able to take advantage of available programs, the profusion of programs and program delivery systems, along with the lack of clearly articulated employability competencies, have made it difficult for employers to judge the quality of programs or more importantly, the skills of its graduates.

The problem has been especially severe in regard to employment and training programs which with few

exceptions have had no systematic way of communicating either program goals or participants' actual learning outcomes to persons outside the system.

What has happened most frequently is that when credentials are required, the standards and methods of traditional educational accountability systems are used. Because these systems are applied to nontraditional programs, they usually discount the learning that takes place in nontraditional settings. Furthermore traditional education institutions and audiences cannot "recognize" the learning through provision of credit because it is not presented in a form and fashion that is consistent with their policies and procedures. As a result it is extremely difficult to make comparisons between persons coming out of alternative programs and graduates of more traditional programs.

In a competency-based system, programs are structured to meet the needs of the workplace, and consequently participants in such programs can easily be "marketed" in the workplace.

The process of monitoring competency attainment offers a valuable opportunity to provide a young person with both skills and the means of presenting those skills through some kind of permanent record.

COMPETENCY CERTIFICATE = GOALS ATTAINED WITH INDIVIDUALIZED PLAN

A certificate of competencies attained might be viewed as a streamlined version of an individualized planning form. It contains information that employers need to make decisions about hiring. An employer probably does not need to know the results of intake assessment or the results of specific progress assessments. However, the employer should be able to tell readily from the participant's credential what skills, knowledge, attitudes, and behavior he or she can demonstrate.

Certification also has the additional value of providing motivation for participants. A certificate can have the force of a "diploma," and it can be something that can have lasting value for the youth.

Suggested Activities

Experience of competency-based programs in education, the military, and employment and training programs shows that it is possible to

develop an employability profile using information generated by assessment, training, and internal management activities that normally take place within the program. Methods for doing this are discussed below as options for how such profiles could be designed for competency-based youth employment and training programs. Any such profile shoud be based on the individual's record of performance within the program, documenting the progress made by the individual and the actual competencies or skills attained. Other kinds of information the document might contain are:

- instructor ratings
- work supervisor ratings
- documentation of work and training experiences
- certification of individual achievements in terms of competencies making up your program

Job Corps Model

Within the Job Corps, individualized competency-based program recordkeeping is accomplished through the Training Achievement Record (TAR). The TAR is the principal form used to evaluate and monitor the progress of individual corpsmembers in all Job Corps courses. At any time during a corpsmember's participation in the program, the TAR provides a summary record of the corpsmember's performance to date in terms of the competencies set forth in the course plan. Since each module in a course is built around a competency required for employment in an occupational cluster and/or a single occupation within that cluster, the corpsmember's achievement is recorded by competency module rather than by a single task or bits of knowledge. Furthermore, since corpsmember achievement is determined by entry-level industrial standards, as measured by criterion-referenced tests, achievement is recorded only when the corpsmember performs to industrial standards.

Since the TAR contains a complete training record of the corpsmember performance within Job Corps, it assists in job placement and the preparation of what is called an individual Corpsmember Employability Profile. This profile is a summary

document which provides employers with a quick overview of the competencies attained by the corpsmember. The TAR forms are reproduced at the end of this section.

Experience-Based Career Education (EBCE)

Student records and credentials developed under this model, which blends academic experience with work experience, are an integral part of the program's recordkeeping system. The program documentation process includes a record of the student's performance, a portfolio of employer recommendations as well as an employer-verified record of student achievements in important life-role competencies such as establishing a banking account, preparing a letter of application for a job, etc. The EBCE forms are reproduced at the end of this section.

Career Passport Project

The Career Passport Project developed a generalizable process for reporting attainment of competencies gained by youth with a wide variety of backgrounds and experiences. The process of developing a career passport may be summarized as follows:

DESCRIPTION OF	work experiences hobbies inschool activities community activities volunteer activities home responsibilities
TRANSLATION INTO	skills knowledge attitudes competencies interests
PRESENTATION	in a career passport or experience report
USED FOR	interviews job applications self-awareness counseling

A sample career passport is presented on the next page.

CAREER PASSPORT (Sample)

Name: John Doe Date of Birth: July 4, 1963

City, State, Zip: San Jose, CA 97133
Telephone: 408/923-5928
Social Security Number: 274-06-4116

Career/Job Plans

LONG RANGE OBJECTIVE:

My goal is to become a painter in the construction industry.

SHORT RANGE OBJECTIVE:

I would like full time employment with apprenticeship training. I also desire to help support my family and to gain experience in the construction industry.

EDUCATIONAL PLANS

I would like to get my GED while completing my apprenticeship training.

Education/Training

I am not presently attending school. The name of my last school was Independence High School in San Jose, CA. My major course emphasis was general education.

Job Skills

I have the skills to work as a painter, janitor, and as a warehouse worker.

My three best vocational skills are working with people, working with my hands, and working with tools. I am also capable of instructing others.

Job Experience

My previous employment experience has been as a painter for ABC Paint Co. and as a janitor for Hewlett-Packard. I have also volunteered as a manager for a baseball team. My family responsibilities include helping my younger brothers and encouraging them to stay in school.

Special Strengths, Interests, and Abilities

My strong points are that I am a good listener, honest, and I can work with others. I am also bilingual (Spanish).

References

John Doe was a dependable, honest employee and demonstrated the ability to learn and to work with others.

John Brooks, President
ABC Paint Company

Fig. 6: Sample Passport from Career Passport Project

Summary

The credentialling process is the final step in a competency-based employment and training project, and it is the step that will be perhaps of the most practical value to the young participant. Its practicality is that certification of competencies gained will allow the youth to present evidence of accomplishment to employers, and to other educational or training institutions. With a credential certifying proficiency in skills, knowledge, attitudes and behaviors deemed by employers themselves to be necessary for employment, the youth is in effect saying, "I have the skills you need--and the documentation to prove it."

Job Corps Training Achievement Record (TAR)

NAME	SOCIAL SECURITY NO.	DATE TRA. TRAINING ENTERED	TITLE	CERTIFIED BY
			Automotive Body Repairer DOT CODE ▶ 807.381	

ACHIEVED INDIVIDUAL MARKETABLE SKILL	PERFORMANCE				KNOWLEDGE			
	1	2	3	4	a	b	c	d
Safety								
1. Practice safety on the job 4d								
2. Remove combustible fluid or vapor from gas tanks and lines, brake reservoirs and lines before welding 4d								
3. Use protective goggles/clothing when welding, brazing and leading 4d								
4. Use protective masks when exposed to paint vapors or noxious fumes 4d								
5. Use appropriate safety techniques when using jacks, lifts, etc. 4d								
6. Use protective clothing/handling procedures when working with glass 4d								
General								
7. Maintain and use common hand special tools 3c								
8. Use and maintain body and frame alignment checking equipment 3c								
9. Use and maintain refinishing equipment 3c								
10. Know principles of auto body construction 3c								
11. Know properties and characteristics of automobile metals 2b								
Straightening and Repairing Body Parts								
12. Inspect body damage; determine method of repair 2b								
13. Remove and replace upholstery trim 2b								
14. Straighten deformed panels, doors and fenders 2b								
15. Shrink and stretch damaged metal areas 2b								
16. Bump out folds, dents and creases 2b								
17. Weld cracks, seams and body parts 2b								
18. Locate body irregularities by hand or light method 3c								
19. Fill depressed areas using lead, plastic and fiberglass 3c								
20. Smooth filled areas 3c								
21. Clean repaired surfaces for painting 3c								
Body and Frame Alignment, Assembly								
22. Remove and install panels, doors and fenders 3c								
23. Align body 3c								
24. Check frame alignment using frame bar 2b								
25. Adjust, align hinges, locks and other mating surfaces 3c								
26. Install weather stripping; replace chafing strips 3c								
Glass Installation								
27. Remove and replace molding, hardware, pads, upholstery, window operating equipment 3c								
28. Remove damaged glass 3c								
29. Straighten, repair and replace channels 3c								
30. Repair and replace window opening mechanisms 2b								
31. Grind, bevel and smooth glass edges 2b								
32. Install glass in channels and body 3c								

U.S. DEPARTMENT OF LABOR
Employment and Training Administration

TRAINING ACHIEVEMENT RECORD

ETA 8 334 (May 1977)

BEST COPY AVAILABLE

ACHIEVED INDIVIDUAL MARKETABLE SKILL		PERFORMANCE 1	2	3	4	KNOWLEDGE a	b	c	d
Glass Installations (Continued)									
35. Mask sections	3c								
36. Apply primers	3c								
37. Featheredge and sand surface	3c								
38. Use water orbital sander	3c								
39. Mix and prepare paint using thinners, dryers, retarders and accelerators	3c								
40. Paint prepared surfaces	3c								
41. Use and care of spray booths	3c								
42. Finish newly painted surfaces	3c								
43. Touch up after painting	3c								
44. Apply corrosion control materials	3c								
Additional Related Training Elements									

EDUCATION, TECHNICAL KNOWLEDGE–JOB PHYSICAL PROFILE		PERFORMANCE 1	2	3	4	KNOWLEDGE a	b	c	d
1. Carry out instructions furnished in written, oral or diagrammatic form	4c								
2. Deal with problems defining numerous specific tasks of standard practices	4c								
3. Make arithmetic calculations with fractions, decimals, percentages	4c								
4. Read manuals and write reports, using proper sentence structure	4c								
1. Able to lift 50 lbs. maximum; carry to 25 lbs.; walk and stand continuously	4								
2. Able to use back muscles and legs to stoop, kneel, crouch, crawl	4								
3. Able to use fingers, hands and arms to reach, handle, feel	4								
4. Able to see efficiently	4								
5. Work indoors	4								

ATTITUDES AND PROFESSIONAL ETHICS		ATTITUDES & ETHICS I	II	III	IV	V
1. Demonstrate correct safety practices on the job	V					
2. Maintain appropriate personal hygiene and appearance	III					
3. Arrive on the job on time	IV					
4. Is on the job every day	IV					
5. Perform work of consistently good quality	IV					
6. Function cooperatively with fellow workers	III					
7. Treat others courteously	III					
8. Work with even temperament	III					
9. Accept constructive criticism	IV					
10. Follow instructions willingly	IV					
11. Deal well with supervision	IV					
12. Willingly work unusual schedules when required	III					
13. Handle proprietary information discreetly; respect confidences	III					
14. Respect worth of equipment, company and personal property	IV					

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Experience-Based Career Education (EBCE)

SKILL DEVELOPMENT RECORD

Student _____ Site _____

DIRECTIONS:

1. Ask your EI to take a few minutes to discuss with you the skills you will be acquiring at the site. List them here and note target dates for completion.
2. Ask your EI how well you should be able to do each task. For example:
   A. Number of units per (hours, day, minute)
   B. Percent of accuracy required
   C. Able to initiate and complete without supervision
3. Have your EI note the extent of your participation:
   A. You have observed the task
   B. You have practiced the task
   C. You have acquired the task
4. When you think you can do a task as well as your EI says you should, have him/her check you on the task and fill in the last two columns.

TASKS/SKILLS	EXTENT OF PARTICIPATION	TARGET DATE	COMPLETED	EI INITIAL

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Skill Development Record, Side Two

TASKS/SKILLS	EXTENT OF PARTICIPATION	TARGET DATE	COMPLETED	EI INITIAL

Student _____ Date _____

Employer Instructor _____

Site _____

Learning Level ☐ Skill Building Level ☐

	Needs to Improve	Improving	Satisfactory	Commendable	Excellent	Does Not Apply
ATTENDANCE/PUNCTUALITY						
Reports to employer site on time						
Adheres to established schedule						

Comment:

ATTITUDE						
Understands and accepts responsibility						
Observes employer's rules						
Shows interest and enthusiasm						
Courteous, cooperative						
Good team worker						
Judgment						
Poise, self-confidence						
Demonstrates appropriate dress/grooming						
Concerned for equipment/property						

Comment:

LEARNING PROCESS						
Uses initiative, seeks opportunities to learn						
Learning growth						
Quality of assigned projects						
Asks questions of appropriate person						
Uses employer site learning resources						

Comment:

PERFORMANCE						
Begins assigned tasks promptly						
Seeks feedback concerning performance						
Accepts feedback information						
Uses criticism constructively						
Completes tasks assigned						
Progressively requires less supervision						

Comment:

_____

ADDITIONAL COMMENTS:

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_____
Signature

STUDENT PROFILE

Student _____

CAREER ASSESSMENT: Employer Relations Specialist
Date _____
Interest Tests:

72

BASIC SKILLS ASSESSMENT: Student Coordinator
Date _____
Test Results and Interpretation:

LIFE SKILLS/LEARNING STYLE ASSESSMENT: Learning Manager/Student
Date _____
Interview and Comments:

PART III: IMPLEMENTATION ISSUES

IN PART III, QUESTIONS ABOUT ACTUAL IMPLEMENTATION ARE FACED; ISSUES OF TIMING, RESOURCES, SCOPE, DESIGN, IMPACT, AND STAFF TRAINING ARE DISCUSSED

The purpose of this section is to provide guidance to SDA program planners and operators around key implementation questions that they are likely to face. It should be stressed from the outset that not all important questions will have easy answers--in spite of the fact that research and the experiences of practitioners point to the value of competency-based employment and training for youth, there is still much left to learn concerning how best to put specific programs into practice.

Also, there has been a consistent assumption in JTPA that the best programs are ones in which key decisions are made at the local level. As a result, guidance and directives from the federal level will be kept to a minimum. This Guide is written with the goal of encouraging the establishment of local level partnerships needed to answer key questions relating to program structure and implementation. While the examples and suggestions in the Guide have been chosen to reflect what has worked in certain specific situations, the authors realize fully that these examples will not necessarily work in every situation.

Most people with experience in competency-based systems agree that the most important implementation issues are the following:

- timing
- resources
- scope
- design
- impact on other operational systems
- staff training and capacity

Each of these issues is discussed further below:

Timing

Prime sponsors involved with the CYEP demonstration agreed that as much as two years may be needed for fully implementing a benchmarking system. The Department of Labor's approach on the use of competency standards is based on this need for longer term development The initial nine-month period should concentrate on the development of systems, policies, and procedures. The first full program year should then focus on implementation and refinement of the system. The question of timing is also, of course, linked to

the complexity of the competency-based system being implemented. Simple designs obviously take less time and often fewer resources to implement than more complex ones.

Resources

The amount of money that SDAs have to operate youth programs has an impact on the types of competency-based practices that they implement. While most people feel that implementation of a new operational system requires financial support over and above what is allocated for normal program operations, several factors combine to suggest that implementation is feasible under existing resources under JTPA. First, the phase-in approach requiring plans to be formulated during year 1 of JTPA has the effect of spreading developmental costs over time, thereby lessening the financial strain that would result from having to implement a new program in two or three months. Second, JTPA intends that implementation be truly a partnership of key agencies and institutions. By building partnerships, SDAs may be able to increase the effectiveness of their resources and thereby offset additional costs of implementing a competency-based system. Third, the best way to think about competency-based employment and training is not (for most SDAs) as a brand new system requiring redesign and retooling from the ground up (like a new automobile). It is much more practical to think of it as a modification and redirection of existing practices. As has been stressed earlier, many SDAs already have in place many of the elements of competency-based employment and training. In addition, other local or state agencies, such as the vocational education community, may have already gained experience in competency-based programming. And finally, technical assistance and training will make available resources that should eliminate the need for costly development efforts.

Scope

An issue program designers will need to face early has to do with the scope of their effort. They will need to decide whether to implement a complete competency-based system or to phase in the implementation. Good arguments can be found for either approach. In SDAs where elements of competency-based employment and training exist, it may be possible to develop a full set of competencies, benchmarks, and assessment mechanisms for each competency area. On the other hand, in

new SDAs and in SDAs where the concepts of competency-based employment and training are not well understood by staff, a phased-in approach may be preferable. One means of phasing-in might be to develop competencies first in one competency area, to test and refine measurement tools, and then to add the competencies from the other two competency areas in a second round of planning. Another approach might be to develop a pilot set of competencies to gain familiarity with how the process might operate. Based on the pilot results, a full implementation could be developed.

Design

Issues of program design focus on: (1) the variations in the design of intake and assessment procedures; (2) employability development planning and recording; and (3) documentation and certification procedures, MIS procedures, etc.

1. Variations in Design of Intake and Assessment Procedures

Intake and assessment should be much easier to perform under a competency-based system, for the reason that nothing needs to be done unless it relates to competency attainment. As mentioned above, centralized assessment seems to be consistent with the "spirit" of competency-based employment and training, since the legislation requires the same competency set to be used throughout a service delivery area.

2. Employability Planning and Recording

Decisions about who carries out employability planning, and about how often records are updated are also an important part of program planning. As mentioned above, forms should be simple to use, and should lend themselves readily both to recording of initial assessment results and to planning for competency attainment.

3. MIS Procedures

Individualized employability planning records can furnish valuable information for management purposes.

Impact on Other Operational Systems

Competency-based employment and training implies that an SDA may develop and maintain several

management and administrative systems:

1. An MIS that can collect data on competencies and produce usable reports;

2. A planning and evaluation capability that can determine what kinds of competency data can be used to evaluate program performance;

3. A service delivery/client flow system that is adjusted to accommodate various elements of the process;

4. Clearly defined staff roles and organizational responsibilities that identify the relationship of operations staff to MIS and planning in terms of monitoring the performance of the competency-based system.

Staff Training and Capacity

The successful introduction of a new management system (or modification of an existing one) should be accompanied by appropriate staff training and preparation. Training may be required both in areas requiring special expertise (e.g., assessment) and in areas of building staff morale and commitment to a new effort.

PART IV: CONCLUSION

This brief conclusion will attempt to summarize the key points of competency-based employment and training under JTPA in a "quick-reference" format.

1. Purpose

The purpose of competency-based employment and training is to help young people attain competencies recognized by the Private Industry Council as necessary for entering the work force in the local community or service delivery area.

2. Components

Competency-based employment and training is built around the following components:

ASSESSMENT of participant competency level;

INDIVIDUALIZED PLANNING for services to help participants attain acceptable competency levels;

REASSESSMENT to determine if competencies have been gained;

CERTIFICATION of competency attainment.

3. Competency Development Process

Under JTPA, it is assumed that standards for employment are unique to local areas, and that representatives of business and industry ought to have a key voice in determining what those standards are. Employment and training agencies can then develop programs that help youth attain the identified competencies. The fundamental mechanism for participation of representatives of business and industry is the PIC. The PIC has a legislative mandate to approve competencies developed for a Service Delivery Area. If the PIC is conscientious in approving competencies that accurately reflect local needs and practices, and if employment and training agencies can provide services that allow young people to attain competencies, then there will truly be a partnership that will be meaningful for youth.

4. Glossary of Key Terms as Related to Competency-Based Employment and Training

Assessment: A determination of the level of a young person's skill, knowledge, attitude, or behavior.

Benchmark: A standard of performance of level of proficiency accepted by employers as a minimum for entry level employment.

Certification: A document intended for public use that describes competencies which have been attained by program participants.

Indicator: An observable behavior that indicates possession of a competency.

Individualized Planning: A plan, based on identified needs, for providing service to meet an identified goal. Individualized planning should include a provision for assessment to determine whether the goal has been met.

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Benchmarking: Issues in the Design and Implementation of a Benchmarking System for Employment and Training Programs for Young People. Prepared by David C. Coughlin and Rhonda P. Bielen, A. L. Nellum and Associates, Braintree, MA, November, 1981.

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Job Training Partnership Act Implementation Plan. Office of the Assistant Secretary, Employment and Training Administration, October, 1982.

Job Training Partnership Act. P.L. 97-300 (text).

Local Benchmarking Systems. Youth Performance Standards Technical Paper No. 2. Technical Workgroup, October, 1981.

Ready to Work: Using Competencies, Standards, and Assessment to Meet Local Employer Needs. Draft prepared by Beverly L. Anderson, Robert E. Blum, Greg Druian, and Larry McClure, Northwest Regional Educational Laboratory, August, 1981.

Recognizing Learning Outcomes for Employment. Consortium on Education for Employment, April, 1982.

Youth Competencies. JTPA Performance Standards Technical Paper, No. 7, December 1982.

Appendix I: A Sample Competency-based System

The Comprehensive Education and Training Opportunities Program (CETOP)

Competency-based systems have been developed and used in the education, vocational education and adult education communities for a number of years. While there has been some effort in the research and development of these systems for youth employment and training programs, there have been, in fact, very few systems that had actually developed a comprehensive set of competencies and had delivered services organized around the attainment of these competencies. One such program was CETOP. It should be noted that the CETOP system is not necessarily directly applicable to the JTPA framework. It has been included here as a sample of a competency-based system and provides a concrete, applied example of many of the concepts described in the guide.

CETOP was a demonstration project designed to provide an array of employability development and educational services to eligible youth. It served both in-school and out-of-school youth, and operated until August, 1982. CETOP was built upon benchmarks, or learning objectives, which divided into three skills areas: life coping skills, work readiness skills, and basic academic skills. Each skills area, in turn, was broken down into individual competencies. In order for a participant to be deemed "competent" in any benchmark area, he or she had to pass through four levels of increasing difficulty.

The benchmarks served as the foundation for the CETOP curriculum with each benchmark being specified in behavioral terms as a learning objective. Instructional or counseling group activities were specially designed to facilitate this growth and development.

The following list presents CETOP's three competency areas, broken down into forty-one separate competencies.

I. Life Coping Skills
- Applications
- Signs and Symbols
- Community Resources
- Budgeting
- Self-Image
- Crisis Management
- School/Work Attitudes

II. Work Readiness Skills

Section A: Long-Term Objectives
- Completion of Requirements (Class)
- Completion of Requirements (Job)
- Performance Ratings
- Attendance
- Punctuality
- Cooperation
- Notification
- Perseverance
- Social Adjustment

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Section B: Short-Term Objectives

- Communication Skills
- Questioning
- Directions
- Self-Perception
- Criticism
- Decision-Making
- Problem-Solving
- Employer Expectations
- Dress
- Labor Law
- Evaluation by Others
- Awareness of Experience
- Job Clusters
- Job-Search Skills
- Job Applications
- Resume Writing
- Interview Skills

III. Basic Academic Skills

- Reading Test Related
- Reading-Situation Based
- Computation
- Problem-Solving
- Writing
- Speaking
- Social Studies
- Science

Information about CETOP is available from:

- Mexican-American Unity Council, Inc.
  2300 West Commerce
  San Antonio, Texas 78207

- Manpower Demonstration Research Corporation
  3 Park Avenue
  New York, New York 10016

Following is a sample from the CETOP program manual including a description of benchmarks, assessment procedures, and standards for each competency area. For illustrative purposes, we have included only one competency from each of CETOP's three competency areas. The sample includes all four levels of difficulty for each competency.

CETOP

COMPETENCIES AREA: Life Coping Skills: School/Work Attitudes

BENCHMARK: LEVEL: 1 NUMBER: 7

Participants identify personal characteristics of successful worker/student and cite which of those characteristics they possess for goal attainment.

PEER SESSION: #18
PEER SESSION: #24
PEER SESSION: #25

PROCEDURE:

1. Activity #2: LCS1-7 Time: 20 minutes
   a. Facilitator opens the session with the question, "If I were to ask a group of teachers/supervisors to describe you, what three words would they use?" Facilitator questions participants: "Are you happy with the description of yourself?" Facilitator proceeds to tell the group that this session will be focusing on characteristics of good participants
   b. Facilitator asks participants to brainstorm the question, "What do you think good teachers/supervisors expect of good participants?" Facilitator might wish to make some suggestions (i.e., participation, good attendance, maturity, etc.) Facilitator marks down the participant's responses on blackboard or poster board
   c. Facilitator asks participants to take some time out to look over the list and asks: "Do you fit any of these descriptions?" Facilitator distributes worksheet "My Attitude" LCS1-7 and instructs participants to list the descriptions that apply to them in the column marked "Characteristics I Possess"

MATERIALS: 1. Worksheet "My Attitude"
2. "Cooperation Squares Game"
3. "Murder Activity"

EVALUATION:

COMMENTS:

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PROCEDURE: (cont'd)

d. Facilitator instructs participants to look at those remaining characteristics that do not apply to them and asks them, "What keeps you from fitting the rest of these descriptions?" Participants are then instructed to briefly describe the characteristics they do not possess and list why not (i.e., maturity-I cut up with my friends in class/work) in the appropriate column

2. Activity #2 LCS1-7, LCS2-7, LCS3-7 Time: 45 minutes

a. Facilitator breaks up group into five subgroups and hands each subgroup one envelope containing parts of a square and an instruction sheet

b. The participants are instructed to open the envelope on signal, to read the instructions, and to do the exercise. Also, the facilitator reads the instructions to the group.

c. Facilitator watches the activity, noting such things as
   1) Was there a group leader?
   2) What actions by the group helped or hindered the completion of the activity?
   3) Did they have a good goal?
   4) How did the participant seem to feel about the activity?
   5) How did they proceed through the activity?

d. Facilitator leads a discussion using the questions listed on the handout

f. Facilitator asks participants to relate the activitiy to actual work-related activities

g. Facilitator asks the participant's input as to
   1) What are the characteristics of a good worker? How does your work fit into the rest of the company?
   2) What situations, attitudes, etc. contribute to satisfying and unsatisfying aspects of work/school setting?
   3) What are the characteristics of a good leader/ teacher/supervisor?

3. Activity #3 LCS1-7, LCS2-7, LCS3-7 Time: 1 hour

a. Facilitator breaks up group into three subgroups and hands out to each subgroup one envelope containing the 21 clues and 5 questions to be answered

b. Facilitator watches the activity noting the same kinds of questions posed in step 3 of activity #2, PEER SESSION #24

c. Steps 4, 5, and 6 of activity #2, from PEER SESSION #24 are followed

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CETOP

COMPETENCIES AREA: Life Coping Skills: School/Work Attitudes

BENCHMARK: LEVEL: 2 NUMBER: 7
Participant identifies most satisfying aspects of work/school; lists changes he/she would like in work/school setting; and determines whether desired changes are realistic.
PEER SESSION: #18
PEER SESSION: #24
PEER SESSION: #25

PROCEDURE:
1. Activity #3: LCS2-7 Time: 20 minutes
   a. Facilitator begins a discussion by asking, "What is the most satisfying thing about school/work for you, what do you like the best?" Facilitator asks participants to write their answers on the worksheet "My Attitude" LCS1-7 under the column "Things I Like About School/Work"
   b. Facilitator next asks, "What is the most unsatisfying thing about school/work for you? What do you dislike about school/work?" Again, participants are instructed to write their answers down under the appropriate column. Facilitator instructs participant to look at the answers in this column and asks participants "Are there any changes that you could make that would make school/work more meaningful for you?" (i.e., I don't like it when teachers give me bad grades--If I studied more and goofed off less, I might make better grades)
   c. Facilitator instructs participants to write a short description of realistic changes that could be made and to enter these next to the corresponding answer

MATERIALS: 1. Worksheet "My Attitude"
2. "Cooperation Squares Game"
3. "Murder Activity"

EVALUATION:

COMMENTS:

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PROCEDURE: (cont'd)

d. Facilitator tells participants that they now have a pretty good picture of their attitude toward school/work. Facilitator brings closure to group by telling participants that they have also identified some problem areas and that these areas will be addressed in a later peer session on goal-setting. Facilitator collects papers to be referred to in Peer Session #19)

2. Activity #2 LCS1-7, LCS2-7, LCS3-7 Time: 45 minutes

a. Facilitator breaks up group into five subgroups and hands each subgroup one envelope containing parts of a square and an instruction sheet

b. The participants are instructed to open the envelope on signal, to read the instructions, and to do the exercise. Also, the facilitator reads the instructions to the group

c. Facilitator watches the activity, noting such things as
   1) Was there a group leader?
   2) What actions by the group helped or hindered the completion of the activity?
   3) Did they have a good goal?
   4) How did the participant seem to feel about the activity?
   5) How did they proceed through the activity?

d. Facilitator leads a discussion using the questions listed on the handout

f. Facilitator asks participants to relate the activitiy to actual work-related activities

g. Facilitator asks the participant's input as to
   1) What are the characteristics of a good worker? How does <u>your work</u> fit into the rest of the company?
   2) What situations, attitudes, etc. contribute to satisfying and unsatisfying aspects of work/school setting?
   3) What are the characteristics of a good leader/ teacher/supervisor?

3. Activity #3 LCS1-7, LCS2-7, LCS3-7 Time: 1 hour

a. Facilitator breaks up group into three subgroups and hands out to each subgroup one envelope containing the 21 clues and 5 questions to be answered

b. Facilitator watches the activity noting the same kinds of questions posed in step 3 of activity #2, PEER SESSION #24

c. Steps 4, 5, and 6 of activity #2, from PEER SESSION #24 are followed

CETOP

COMPETENCIES AREA: Life Coping Skills: School/Work Attitudes

BENCHMARK: LEVEL: 3 NUMBER: 7
Participant identifies characteristics of a good teacher/supervisor and ways they can influence teacher/supervisor to exhibit those characteristics.
PEER SESSION: #18
PEER SESSION: #24
PEER SESSION: #25

PROCEDURE:
1. Activity #1: LCS3-7 Time: 20 minutes
   a. Facilitator tells group that the session will be focusing on the participants' attitude toward school/work and identifying problem areas that we might be able to change
   b. Facilitator asks group members to close their eyes and become as comfortable as possible. Participants are asked to remember at least one of their teachers/supervisors throughout the years who has made an impression on them. Facilitator asks participants to think about what made them special. Facilitator allows several moments of silence and then asks participants to open their eyes
   c. Facilitator asks participants to think of what characteristics these teachers/supervisors possess that make them so special
   d. Facilitator asks participants to brainstorm a list of these characteristics and posts their answers on a blackboard or poster board

MATERIALS: 1. Blackboard or poster board
2. "Cooperation Squares Game"
3. "Murder Activity"

EVALUATION:

COMMENTS:

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PROCEDURE: (cont'd)

e. Facilitator brings closure to activity by asking "What can you as participants/workers do to help teachers/ supervisors participant will usually elicit positive response from teacher/supervisor)

2. Activity #2 LCS1-7, LCS2-7, LCS3-7 Time: 45 minutes

a. Facilitator breaks up group into five subgroups and hands each subgroup one envelope containing parts of a square and an instruction sheet

b. The participants are instructed to open the envelope on signal, to read the instructions, and to do the exercise. Also, the facilitator reads the instructions to the group.

c. Facilitator watches the activity, noting such things as
   1) Was there a group leader?
   2) What actions by the group helped or hindered the completion of the activity?
   3) Did they have a good goal?
   4) How did the participant seem to feel about the activity?
   5) How did they proceed through the activity?

d. Facilitator leads a discussion using the questions listed on the handout

f. Facilitator asks participants to relate the activitiy to actual work-related activities

g. Facilitator asks the participant's input as to
   1) What are the characteristics of a good worker? How does your work fit into the rest of the company?
   2) What situations, attitudes, etc. contribute to satisfying and unsatisfying aspects of work/school setting?
   3) What are the characteristics of a good leader/ teacher/supervisor?

3. Activity #3 LCS1-7, LCS2-7, LCS3-7 Time: 1 hour

a. Facilitator breaks up group into three subgroups and hands out to each subgroup one envelope containing the 21 clues and 5 questions to be answered

b. Facilitator watches the activity noting the same kinds of questions posed in step 3 of activity #2, PEER SESSION #24

c. Steps 4, 5, and 6 of activity #2, from PEER SESSION #24 are followed

CETOP

COMPETENCIES AREA: Life Coping Skills: School/Work Attitudes

BENCHMARK: LEVEL: 4 NUMBER: 7

After lecture on criteria for goal setting, participants identify what they would like to be doing in five/ten years; ways in which school/work relates to these goals; and personal changes they may wish to make.

PEER SESSION: #20

PROCEDURE:

Activity #5: LCS4-7 Time: 30 minutes

A. Facilitator distributes "Future" worksheet and instructs participants to complete it

B. When participants are finished, the facilitator solicits responses on the activity. The facilitator may wish to start a discussion on obstacles to future goals. Facilitator discusses the importance of knowing about what we want to do in the future (long and medium range goals) so that we may be aware of what may get in the way, what we need to be doing to prepare, especially in regards to our education

C. Facilitator brings closure to the group by stressing the importance of goals. Facilitator tells group that goals help in educational and career planning and help the person to be more responsible in relation to peers, parents and school personnel

MATERIALS: Worksheet "Future"

EVALUATION:

COMMENTS:

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CETOP

COMPETENCIES AREA: Work Readiness: Communication Skills
Section B: Short-Term Objectives

BENCHMARK: LEVEL: 1 NUMBER: 10
Participant demonstrates listening skills during counseling group activities.
PEER SESSION: #1
PEER SESSION: #2

PROCEDURE:

1. Activities #1, #2, #3 "Warm Up Activities"
   Purpose: To help develop group cohesiveness and trust
   Time: 45 minutes
   Benchmark: WR-10
2. Activity #4 WR1-10 Time: 15 minutes
   a. Facilitator reviews session on orientation and describes how a lack of communication can change messages and distort communication
   b. Facilitator describes listening, responding, and questioning skills
   c. Facilitator asks group for example of times when they felt that someone misunderstood what they had said. What happened? How did you feel about this?
3. Activity #5 WR1-10 Time: 20 minutes
   a. Have group members pair up. One person speaker/other is listener
   b. Have speaker describe an exciting event that has happened to him/her in the last couple of weeks
   c. Listener uses listening skills and then responds so that the speaker knows he/she has been heard and understood. Obtain feedback
   d. Switch roles. Go through same procedure

MATERIALS: Handout "Communication Skills"

EVALUATION:

COMMENTS: Activities #1, #2, #3 do not meet a specific level of the communication benchmark, but they help to develop group cohesiveness and trust.

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COMPETENCIES AREA: Work Readiness: Communication Skills
Section B: Short-Term Objectives

BENCHMARK: LEVEL: 2 NUMBER: 10
After presentation on "I" messages, participants demonstrate their use in simulation by completing a peer group activity.

PEER SESSION: #3

PROCEDURE:
Activity #6 WR2-10 Time: 25 minutes
a. Facilitator gives lecturette on I-Messages
b. Facilitator distributes conflict situations "I-Messages" WR2-10
c. Participants respond to situations from I-Messages point of view
d. The I-Messages are contrasted with You-Messages
e. When all conflict situations are responded to, the facilitator summarizes both activity and the session

MATERIALS: 1. Lecturette
2. "Conflict Situations"

EVALUATION:

COMMENTS:

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CETOP

COMPETENCIES AREA: Work Readiness: Communication Skills
Section B: Short-Term Objectives

BENCHMARK: LEVEL: 3 NUMBER: 10

Given a situation, participant identifies instances of miscommunicaton.

PEER SESSION: #4

PROCEDURE:

Activity #7 WR3-9, WR3-10 Time: 20 minutes

a. Facilitator explains verbal and non-verbal communication. (Facilitator's guide "Verbal and Non-verbal Communication" WR3-10)
b. Facilitator discusses different ways of non-verbal communication (clothes, jewelry, type of car driven, style of home bought. Other ways people communicate non-verbally is by body posture, expressions, gestures, etc.)
c. Facilitator distributes handout on non-verbal behavior, "You Can't Not Communicate" WR3-10
d. Participants practice various emotions non-verbally
   1. Facilitator models first emotion
   2. Facilitator asks for volunteers to model non-verbal emotions
   3. Facilitator has the group guess which emotion the youth is portraying
e. Facilitator summarizes activity and relates communication to job situations

MATERIALS:
1. Facilitator's guide "Verbal and Non-verbal Communication"
2. Handout "You Can't Not Communicate"
3. "Activity, Communicating Non-Verbally"
4. Situation sheets

EVALUATION:

COMMENTS: Activities #9 and #10 may be substituted for Activity #7
See PEER SESSION #4

CETOP

COMPETENCIES AREA: Work Readiness: Communication Skills
Section B: Short-Term Objectives

BENCHMARK: LEVEL: 4 NUMBER: 10

Participant role plays a stressful communication situation effectively.

PEER SESSION: #4

PROCEDURE:

Activity #8 WR3-9, WR4-9, WR4-10 Time: 30 minutes

a. Facilitator describes stressful situation - reads situation from handout "Speaking" WR3-9, WR4-9, WR4-10
b. Facilitator asks for two volunteers to role play the situation of employer-employee relationship
c. Facilitator has group members process situational role play
   1. What went on here?
   2. What emotions were present?
   3. What did each want to communicate?
   4. How could each have communicated more effectively?
d. Facilitator has the two members do the role play again, utilizing the feedback obtained from the group
e. If the two members have problems with the role play, the facilitator can either ask the group to help him/her out by modeling or either step in and do the role play him/herself

MATERIALS: Handout "Speaking"

EVALUATION:

COMMENTS:

CETOP

COMPETENCIES AREA: Basic Academic Skills: Computation

BENCHMARK: LEVEL: 1 NUMBER: 3

Participant scores 80% on test of basic addition and subtraction.

PROCEDURE:

1. Participant will complete addition skills inventory and subtraction skills inventory
2. Instructor will perform an error analysis on participant's inventories and will make assignments to address participant's weaknesses
3. Participant will take a test on addition and subtraction

MATERIALS:

1. Number Power or equivalent math text
2. Worksheets
3. PLATO System

EVALUATION: 80% accuracy

COMMENTS:

In-school participant must pass a basic math course with at least a C average or demonstrate those math skills on an achievement test

CETOP

COMPETENCIES AREA: Basic Academic Skills: Computation

BENCHMARK: LEVEL: 2 NUMBER: 3

Participant scores 80% on test of basic multiplication and division.

PROCEDURE:

1. Participant will complete a multiplication inventory and a division inventory
2. Instructor will perform an error analysis on participant's inventories and will make assignments to address participant's weaknesses
3. Participant will take a test on multiplication and division

MATERIALS:

1. Number Power or equivalent math text
2. Worksheets
3. PLATO System

EVALUATION: 80% accuracy

COMMENTS:

In-school participant must pass a basic math course with at least a C average or demonstrate those math skills on an achievement test

CETOP

COMPETENCIES AREA: Basic Academic Skills: Computation

BENCHMARK: LEVEL: 3 NUMBER: 3

Participant scores 80% on test of basic fractions and decimals.

PROCEDURE:

1. Participant completes a fractions skills inventory and a decimals skills inventory
2. Instructor performs an error analysis on participant's inventories and makes assignments to address weaknesses
3. Participant takes a test on fractions and decimals

MATERIALS:
1. Number Power 2 or equivalent math text
2. Worksheets
3. PLATO System

EVALUATION: 80% accuracy

COMMENTS:

In-school participant must pass a basic math course with at least a C average or demonstrate those math skills on an achievement test

CETOP

COMPETENCIES AREA: Basic Academic Skills: Computation

BENCHMARK: LEVEL: 4 NUMBER: 3

Given an examination covering basic math skills, including word problems, percent, area, perimeter, and metrics, participants will score at least 80%.

PROCEDURE:

1. Participant completes skills inventories on word problems, percent, area and perimeter, and metrics
2. Instructor performs an error analysis on participant's inventories and makes assignments to address weaknesses
3. Participant takes GED Practice Test

MATERIALS:

1. Number Power 2 or equivalent math text
2. Worksheets
3. GED Practice Test
4. PLATO System

EVALUATION: 80% accuracy

COMMENTS:

In-school participant must pass a basic math course with at least a C average or demonstrate those math skills on an achievement test

Appendix II: An Annotated Resource Guide

As suggested in the Introduction to Competency-Based Employment and Training Programming for Youth, there are already in existence a vast array of assessment and benchmarking instruments and systems. Many of these tools have been used by the education community, vocational counseling community and human resources community for years. While SDAs and youth program staff may choose to develop their own assessment tools, the appropriate use or adaptation of existing systems may significantly shortcut the process of implementing a competency-based system under JTPA.

This appendix represents a first step in introducing the employment and training community to the world of competency assessment. As such, it contains brief summaries of a representative range of commonly used assessment instruments and systems. It should be emphasized, however, that the sample of assessment tools summarized below is meant neither to be exhaustive nor prescriptive. The instruments included below certainly do not represent all available competency assessment tools; the inclusion of a given instrument also does not imply an endorsement of its use. Furthermore, the authors make no claim as to the validity, reliability or appropriateness of any given example.

This appendix is organized as follows:

Section 1 contains brief abstracts of several hundred assessment instruments and systems. The abstracts are organized into categories by competency area, as follows:

A. Multi-dimensional assessment instruments

   1. Pre-employment and work maturity/basic educational skills/job specific skills
   2. Pre-employment and work maturity/basic educational skills
   3. Pre-employment and work maturity/job specific skills
   4. Basic educational skills/job specific skills

B. Pre-employment and work maturity assessment instruments

C. Basic educational skills assessment instruments

D. Job specific skills assessment instruments

E. Other useful instruments

   1. Pre-testing procedures
   2. Vocational choice instruments

Each abstract concludes with the publisher of the instrument noted in parentheses. Section 2 of this appendix is an alphabetical listing of publishers' addresses. Finally, Section 3 of this appendix is a bibliography of articles and books on competency-based systems in employment, vocational training and education.

A. MULTI-DIMENSIONAL ASSESSMENT INSTRUMENTS

1. Pre-employment and work maturity/basic educational skills/job specific skills.

Career Passport Program - The National Institute for Work and Learning's Career Passport Program is designed to fill a gap that many young people face when they consider entering the full-time labor market or continuing their education/training beyond high school. The Career Passport represents a formal document which is useful for job search and college applications because it documents the skills, abilities, and knowledge that have been gained through work and non-work experiences. The process of developing the Career Passport is a natural counseling tool which helps young people discover the strengths, weaknesses, and gaps in their experiences. The program also provides a framework for discussing such specifics as application procedures, interviews, and educational and career planning.

The Career Passport Program has been useful to both in-and-out-of-school youth. It helps them describe and document their work experiences, in-school activities, community and volunteer activities, hobbies, and home responsibilities; and then translate these into skills, competencies, knowledge, and interests.

A Career Passport Program consists of: a youth workbook to collect information on experiences, a leader's guide to assist adults in delivering the service to youth, a system of processing, storing, and updating the information and a format for the Career Passport. A typical Career Passport would include the following: background information, job experience, other experiences (hobbies, volunteer, community, school, family), education and training, skills, abilities and interests, education/career plans, and references. (National Institute for Work and Learning).

Career Planning Program - CPP is a guidance-oriented assessment program which collects, integrates, and reports information relevant to students' career planning. It assesses interests, experiences, and abilities, and helps the student identify and explore personally relevant career options. The CPP Vocational Interest Profile measures knowledge of, or skill in: business contact, business detail, trades, technical, science, health arts, and social service. Six abilities are also assessed, including reading skills, numerical skills, language usage, mechanical reasoning, clerical skills, and space relations. (American College Testing Program).

Consolidated Youth Employment Program - The CYEP demonstration was structured to provide a developmental framework to parallel the maturation process of youth in making the transition from school to work. Benchmarks of achievement were established locally to assess and document progress of participants towards the basic competencies required for successful employment. These four skill areas were: pre-employment, work maturity, educational, and occupational.

CYEP incorporated competency based assessment and service delivery systems to enhance the individualized acquisition of skills. The Job Corps Training Achievement Record was helpful in designing benchmarks for occupational skills. Standardized testing procedures were used by the primes operating the CYEP to varying degrees. (Osoro & Associates).

Experience Based Career Education Project of the National Institute of Education - EBCE a) involves people and facilities in the community as a principal resource for student learning and program development and b) uses guidance and instructional activities to help students acquire competencies in dealing with the problems and decisions of adult life. This approach balances academic, personal, and vocational development with the subsequent requirement of career related activities for all students and emphasizes the development of general rather than job specific career skills.

In the initial EBCE Project conducted by NIE, the programs used standardized and specially developed tests to measure program effects on students in three basic areas: career development, reading and mathematics skills, and attitudes toward school and learning. Results on these tests were compared with those from randomly selected control groups at local high schools.

The Career Maturity Inventory was used to measure student career development. First and second year students showed significant growth on this measure. Program effects on student career interests were also measured by the Self Directed Search.

The Comprehensive Test of Basic Skills was the primary instrument being used to measure student reading and mathematics skills.

A number of different attitude measures were used by the projects to reveal effects of program activities on how students felt about themselves, about people they were working with, about school, about different career areas, and about learning in general. (National Institute of Education).

Interview Guide - This instrument provides an organized format and process for conducting comprehensive employability assessment interviews. (The Psychological Corporation).

Skill Center Advanced Training and Employment Program - The SCATE program is a national youth demonstration project, funded by the U.S. Department of Labor, to assist youth in preparing for and finding career employment. The project is designed to provide a complete spectrum of training and employment services through an individualized career development program for out of school youth ages 16 to 21, in Hampden County, Massachusetts who are experiencing the most severe barriers to employment.

Once youth are selected for the program, they receive a comprehensive assessment by vocational counselors and specialists, using a wide variety of survey instruments, assessment tools, and testing devices. These include the Singer Graflex, General Aptitude Test Battery, Test of Adult Basic Education, Work Sampling, Bennett Mechanical, General Clerical, and other specialized assessment devices.

Based upon these extensive assessments, as well as on a series of hands-on vocational exploration projects in various skills training areas, an individualized career development plan is prepared for each youth. This plan takes into account the particular needs and capabilities of each individual,

as well as the youth's level of performance and previously acquired competencies. The youth then progresses through a series of benchmarked activities based on an individualized training program.

The training program includes a benchmarking system which is used to document and certify competencies acquired by SCATE graduates, as they develop those skills necessary to compete successfully in the labor market. Four distinct benchmarks have been developed. These four bencmarks, and their associated program activities are:

(1) Basic Employability Skills - a two week preparatory phase designed to provide youth with information regarding career options, awareness of the world of work, and job search techniques.

(2) Work Maturity - a 10 to 20 week work experience activity, designed to develop in youth the ability to maintain continuity of employment, including regular attendance, punctuality, positive attitudes toward fellow employees and supervisor, and diligent work effort.

(3) Educational Competencies - an individualized educational remediation activity to provide youth with academic and communication skills, including GED completion, commensurate with career goals.

(4) Vocational Competencies - an intensive skills training program, up to 36 weeks in length, designed to provide youth with specific entry level skills for access to career employment.

Each of these competency areas has standards of performance, and progression through the program is determined by successful attainment of these benchmarks. (Hampden County Employment and Training Consortium).

Texas Adult Performance Level Project - This is a competency based system of education that combines the diagnosis, prescription, teaching, evaluation and credentialing of life-coping skills. A complete curriculum applies reading, writing, speaking-listening-viewing, computation, problem-solving, and interpersonal relations skills to the content areas of consumer economics, occupational knowledge, health, community resources, and government and law. For example, adults might learn how to read job descriptions or open savings accounts. The curriculum provides the activities and materials needed to teach toward each of the APL life-coping skills objectives. Printed materials are supplemented with filmstrips and cassette tapes. A pre/post diagnostic instrument for each objective is also included.

The APL competency-based high school diploma program offers adults a relevant alternative to the conventional four-year high school diploma and to the General Educational Development Test (GED). Adults can earn a regular high school diploma by demonstrating competencies gained through life skills-oriented adult education programs in combination with those gained through experience. The basic steps to the competency-based diploma are: a) placement tests, b) competency based curriculum, c) a series of life skills activities, and d) demonstration of a marketable entry-level job skill or post secondary education readiness or skills in home management/maintenance. (University of Texas at Austin - Continuing Education).

2. Pre-employment and work maturity/basic educational skills

California Adult Student Assessment System - This comprehensive educational assessment system is being developed to assist adult education programs in implementing competency based curricula in local instructional programs. The four major goals of CASAS are:

a) to provide effective assessment materials and procedures for correct placement of adult students into adult programs from beginning through advanced levels of ABE and ESL as well as high school completion programs,

b) to provide effective assessment for measuring student achievement in a competency-based adult education program,

c) to provide effective assessment for certifying attainment of competencies required for local certification programs, and

d) to provide effective assessment materials and procedures that are adaptable to a variety of educational settings and are linked to the competency-based curriculum goals and instructional programs.

These goals are being met through the cooperative activities of CASAS, which is a consortium of districts and agencies that provide educational services to adults. Such organizations need a comprehensive life skills assessment system in order to place adults at all levels of functioning in appropriate Competency Based Adult Education programs, and to measure their progress.

The Consortium model utilizes the resources and expertise of its members, and this cooperative effort provides a comprehensive adaptability. Implementation of competency-based programs require that assessment be designed to directly reflect the curriculum and instruction. Course outlines are being revised to include these competencies, and curriculum materials have been identified that provide a life skills content. The CASAS assessement design includes a bank of test items and facilitates the development of tests for specific purposes. Districts may choose test items to construct placement, achievement, and certification tests that match their programs and educational objectives. (California Adult Student Assessment System).

Job Interest and Literacy Level Evaluation Instrument - JILL contains two main parts. The first is a self-administered checklist which elicits perceptions of what the client wants to do, how he or she wants to do it, and how well the client thinks he or she can perform. The extent to which the client thinks he can perform is the measure of aptitude. The checklists for interest and aptitude, therefore, are subjective measures. The second is a test of literacy or basic skills, and includes nine questions. The first three correspond to sixth-grade level skills, the next three to eighth-grade level skills, and the last three to twelfth-grade level skills. Questions 1, 4, and 7 involve the use of reading skills. Questions 2, 5 and 8 involve the use of writing skills. Questions 3, 6 and 9 are computation items. The test ranges from easy to difficult. There is always the option of "I don't know" and clients are encouraged to check this response rather than guess. This instrument was designed for use with CETA clients. The JILL can be self administered or filled in by the counselor. It can be done in groups or

individually. A counselor can read the instrument to the client and record answers in about a half hour or less. A person with eighth grade reading skills can complete the two parts on his or her own in 15-30 minutes. (University of Texas at Austin).

Priority Counseling Survey - PCS was designed to identify educational and vocational counseling needs and priorities. The junior high forms deal with educational self-appraisal and help needed. The high school and junior college forms deal with areas such as career interest and skills and course of study and help needed. (Minicomp Corporation).

3. Pre-employment and work maturity/job specific skills

Beta - This instrument is a performance oriented intelligence test which is used along with the USES GATB. The revised BETA test includes six areas: a) ability to pay attention, to plan, and to use foresight, b) ability to perform repetitive tasks that involve new learning and short-term memory, c) abstract concepualization skills, d) capacity to perceive spatial relationships, e) ability to differentiate essential from non-essential details, and f) visual discrimination tests that measure clerical skills, speed, and accuracy. (The Psycholological Corporation).

Cleff Job Matching System - Cleff was designed to match jobs and job applicants at lower skill levels for both white and blue-collar occupations. This approach assumes that people seek out those work activities which they feel present the best prospects for success. CJMS developed a common language for describing the content and work environment of lower level jobs, and the characteristics, experiences and preferences of those seeking to fill those positions. The complex matching process determines which of the available openings best suits a particular applicant. (Center for Human Technology).

Comprehensive Occupational Assessment and Training System - COATS is intended for youth and adults in employment and training programs. It was basically designed for client (or student) self-interpretation followed by activities to change behavior. COATS contains four systems: a) job matching—matches person and preferences, experiences, and abilities to employment and/or training opportunities, b) employability attitudes—compares person's work values with employers' work values, c) work sample—contains 26 work samples (i.e., Masonry, Nutrition, Real Estate), and d) living skills—assesses literacy skills and knowledge. Each component can be used independently. (PREP, Inc.).

Experience Exploration - This is a career decision-making model based on evaluation of experience. It relates self-assessed experiences to the world of work and contains the following sections: a) an experience survey, b) experience in school subjects, c) perceived abilities, d) experiences with data-people-things, e) a work value inventory, and f) expected educational level. Interpretation reveals a series of job titles with DOT number. (Chronicle Guidance).

Geist Picture Interest Inventory - GPII reports 11 or 12 interest scores including persuasive, clerical, mechanical, musical, scientific, outdoor, literary, computational, artistic, soical service, dramatic, personal service (females only) and 7 motivational scores including family, prestige, financial, intrinsic and personality, environmental, past experience, could not say. It has male and female versions. (Western Psychological Services).

Hester Evaluation System - Hester's twenty-six separate performance and paper and pencil tests are used to measure 28 ability scores. Computer printouts report scores on each test, show level of functioning based on Data-People-Things hierarchy, and list specific DOT job titles sorted from most feasible to least feasible. (Evaluation Systems, Inc.).

Nurses Attitudes Survey - NAS is a multiple choice test for prospective nursing students. Scores are provided on attitudes related to nursing, self, home-family responsibility, others-love-marriage, and academics. (Nursing Research Associates).

Rating Scales for Vocational Values, Interests and Aptitudes - The purposes of VVIA are: to integrate a student's self-assessment of vocational values, interests, and aptitudes for several occupational areas, to determine the extent of interest in 20 areas applicable to career planning, to ascertain the degree of aptitude a person believes he or she possesses in each, and to discover the amount of value a person places on each of these classifications. (Educational and Industrial Testing Service).

San Francisco Vocational Competency Scale - SFVCS is designed to rate mentally retarded adults for participation in sheltered-workshops and other workshop programs. It covers four areas: motor skill, cognition, responsibility and social-emotional behavior. (The Psychological Corporation).

Vocational Interest, Temperament and Aptitude System - VITAS is composed of 21 work samples covering 15 worker trait group arrangements of the DOT, 3rd ed., and 16 work groups with four work areas in the DOT, 4th ed.. Interests are assessed through a structured interview and temperament is assessed through observation of clients performing the samples. VITAS provides a descriptive assessment of functional skills and quantitative scores for constructing IEPs, vocational placements, and training strategies. It is appropriate for the economically/educationally disadvantaged with less than a 12th grade education, as well as special needs high school students. The process requires 3 five hour days. Scores are reported on: nuts, bolts and washers assembly; packing matchbooks; tile sorting and weighing; collating material samples; verifying numbers; pressing linens; budget book assembly; nail and screw sorting; pipe assembly; filing by lettrs; lock assembly; circuit board inspection; calculating; message taking; bank teller; proofreading; payroll computation; census interviewing; spot welding; laboratory assistant; and drafting. (Vocational Research Institute--Jewish Employment and Vocational Service).

4. Basic educational skills/job specific skills

Armed Services Vocational Aptitude Battery (Form 5) - Form 5 of the ASVAB was developed for civilian use by high school counselors and military recruiters. Its purposes are to: a) provide information useful in career guidance and vocational exploration, and b) furrish service represntatives with test score information on 11th and 12th grade students. Six composite scores are provided in verbal, math, perceptual speed, mechanical, trade technical, and academic ability. Total administration time is 180 minutes. (U.S. Military Enlistment Processing Command, Fort Sheridan, Illinois).

Armed Services Vocational Aptitude Battery - Forms 8, 9, 10 - ASVAB is a multi-factor aptitude testing battery which is currently used as the lead assessment technique for qulaification for and assignments to duty following military enlistment. The current alternate forms of the ASVAB (Forms 8, 9, and 10) each consist of ten subtests: general science, word knowledge, arithmetic reasoning, paragraph comprehension, numerical operations, coding speed, auto/shop information, mathematics knowledge, mechanical comprehension, and electronics informaion. ASVAB requires about 180 minutes to complete. (Air Force Human Resources Laboratory).

CLEP Subject Examination in Computers and Data Processing - This test is appropriate for assessment of educational achievement, advanced placement, or college accreditation of nontraditional study. There are two parallel editions--90 and 45 minutes in length. (Educational Testing Service).

Differential Aptitude Tests/DAT Career Planning Program - DAT offers an integrated battery of aptitude tests, with scores, provided in verbal reasoning, numerical ability, abstract reasoning, clerical speed and accuracy, mechanical reasoning, space relations, spelling, and language usage. The target population encompasses grades 8-12. Total administration time is 235 minutes. (The Psychological Corporation).

Employee Aptitude Survey - Designed primarily for industrial use, this battery measures the following: verbal comprehension, numerical ability, visual pursuit, visual speed and accuracy, space visualizaton, numerical reasoning, verbal reasoning, word fluency, manual speed and accuracy, and symbolic reasoning. The test for each item is only 5 minutes in length. (Psychological Services, Inc.).

Industrial Reading Test - IRT was designed as a screening device with applicants or trainees for technical or vocational training programs. Representing an alternative approach to the measurement of reading skills, it is specifically constructed so that individuals for whom the test is intended will find the material directly relevant and meaningful. Some of the reading passages are representative of sections encountered in technical manuals, while others are written in the form of a company memorandum. Good performance on the test is not dependent on previous knowledge of the subject. Appropriate for 9th-12th grades and adults, IRT takes 40 minutes to complete. (The Psychological Corporation).

USES Non Reading Aptitude Test Battery - The NATB was designed by the United States Employment Service as an alternative to the General Aptitude Test Battery to test the occupational aptitudes of persons who do poorly on standard tests because of a lack of reading skills. Instructions and quesions are read aloud by test administrators so clients need not be able to read at all. Both the NATB and GATB provide scores for the following aptitudes: (G) general learning ability, (V) verbal aptitude, (N) numerical aptitude, (S) spatial aptitude, (P) form perception, (Q) clerical perception, (K) motor coordination, (F) finger dexterity, and (M) manual dexterity. NATB measures the first six aptitudes through materials and situations most familiar to the disadvantaged. Use of coins, tools and pictures are illustrative of this approach. The last three aptitudes are determined by the same tests in both batteries, since these do not require any reading. Total administration time required is 107 minutes. (U.S. Government Printing Office).

Wechsler Adult Intelligence Scale - WAIS encompasses two scales--Verbal and Performance--and provides scores on the following items: information, comprehension, arithmetic, similarities, digit span, vocabulary, digit symbol, picture completion, block design, picture arrangement, and objects assembly. Both speed and accuracy of performance are taken into account in scoring. (The Psychological Corporation).

Wonderlic Personnel Test - WPT is a 12 minute test of general learning ability, including numerical, verbal and spatial aptitudes. It has been widely used in screening applicants for jobs at various levels, especially in private industry. (E.F. Wonderlic & Associates, Inc.).

B. PRE-EMPLOYMENT AND WORK MATURITY ASSESSMENT INSTRUMENTS

Assessment of Career Development - ACD was designed for use with 8th through 11th grade students as a career guidance development tool. Its purpose is to obtain information needed in formulating effective programs tailored to student needs. The instrument's scales measure occupational awareness (knowledge, exploratory experiences), self awareness (job values and preferences, career plans, self evaluation, perceived needs), and career decision making (career planning knowledge, involvement in career planning experiences). ACD can be administered in 125 minutes. (American College Testing Program).

California Life Goals Evaluation Schedules - CLGES is an inventory based on ten career areas: esteem, profit, fame, power, leadership, security, social service, interesting experiences, self-expression, and independence. It is suitable for persons ages 15 and over (Western Psychological Services).

Career and Occupational Development Exercises - COD measures students' attainment of career and occupational objectives related to: a) preparing for making career decisions, b) improving career and occupational skills, c) possessing skills that are generally useful in the world of work, d) practicing effective work habits, and e) having positive attitudes toward work. (National Assessment of Educational Progress).

Career Awareness Inventory - CAI measures the awareness of a variety of careers. It is designed around the functions, contents, status, requirements, lifestyle and experiences typical of twelve occupational clusters. Total administration time is 60-90 minutes. (Scholastic Testing Service, Inc.).

Career Awareness Skills - CAS shows how much a student knows about the following aspects of education, work, and leisure opportunities and how well he/she can use the information: a) relating abilities, values, needs and experiences to career choices, b) locating, evaluating, and interpreting information for career choices, c) knowing facts about career opportunities, and d) finding out about educational requirements for occupations. It takes about 60 minutes to complete. (The College Board).

Career Decision-Making Skills - CDMS reveals skills, knowledge and techniques of a student necessary for informed career decision-making: a) define a problem, b) establish an action plan, c) clarify values, d) identify alternatives, e) discover probable outcomes, f) eliminate alternatives systematically, and g) start action. It takes about 60 minutes to complete. (The College Board).

Career Development Inventory - CDI assesses attitudes, knowledge and skills related to career development, vocational maturity, and readiness to make pre-occupational and vocational decisions. Scores are provided on career planning and exploration, decision-making, world of work information, and understanding of preferred occupational group scales. Total administration time is 60-85 minutes. (Consulting Psychologists Press, Inc.).

Career Education Affective Assessment Questionnaire - This instrument assesses students' feelings about a wide range of concepts related to the world of work. It is designed to be administered to a class in 30-45 minutes. (Minnesota Research Coordinating Unit for Vocational Education - University of Minnesota).

Career Education Career Concepts Test - This instrument determines students' knowledge of career concepts. It has fifty multiple choice items, with no time limit. (Ontario-Montclair School District).

Career Education Cognitive Questionnaire - This instrument assesses students' knowledge about a wide range of concepts related to the world of work. The following areas are included: a) industry, b) occupational levels, c) ability requirements, d) needs (and/or job satisfaction), e) working conditions (or characteristics), f) career decision process and g) employment trends. It takes 30-45 minutes to complete. (Minnesota Research Coordinating Unit for Vocational Education - University of Minnesota).

Career Education Readiness Test - CERT measures student attitudes and knowledge regarding: a) sex role stereotyping, b) intrinsic and extrinsic reasons for working, c) occupational esteem, d) awareness of vocational concepts, e) occupational responsibilities, and f) world of work vocabulary. (Career Education Readiness Measurement and Research).

Career Guidance Assessment - CGA determines knowledge of career awareness, concepts of self in relation to the work world, and constructive use of these understandings as applied to the process of career choice. (Connecticut State Board of Education).

Career Information - CI assesses mastery of knowledge pertaining to career information, occupational supply and demand, job characteristics, and individual needs and interests as they all relate to career choice. (TEXAS Education Agency).

Career Maturity Inventory - CMI measures attitudes and competencies relating to career choice for individuals at the 6th to 12th grade levels. Scores are provided in the areas of self appraisal, occupational information, goal selection, planning and problem solving. Test time is approximately 160 minutes. (CTB/McGraw-Hill).

Career Orientation Battery, Form 58 - COB assesses students' knowledge of and attitudes toward objectives related to technology, self-esteem, attitudes toward school, attitudes toward work, decision-making skills, and the world of work. (New Educational Directions, Inc.).

Career Skills Assessment Program - CSAP determines competencies in the following career development skill areas: self-evaluation and development, career awareness, career decision making, job-seeking, work effectiveness, and personal financial management. The self evaluation and development skills measure assesses self-knowledge in the area of career planning, with an emphasis on personal values, interests, strengths, and weaknesses. The career awareness skills measure assesses knowledge about opportunities in work, education, and leisure. The work effectiveness skills measure is concerned

with problems of interpersonal relations, value conflicts, supervision, work habits, and work attitudes on the job. The remaining measures, career decision making skills, employment seeking skills, and personal economics skills are self-explanatory. Intended populations for use of the measures include high school students and adults in continuing education settings such as community colleges, vocational institutes, and some four year colleges. Each measure consists of sixty to seventy multiple-choice quesions and is designed to be administered in 45-60 minutes. (The College Board).

Colorado Battery - This series of tests was developed for use in work with the seriously disadvantaged. The Social Access Quesionnaire contains 89 items measuring six personality factors. It also contains questions about personal history. This test was designed to tap social and personality characteristics that contribute to "job deviance." Subjects fill out the measure either individually or in large groups. The Work Requirements Rating Scale is a 47-item questionnaire dealing with behavior on the job and is designed to measure the consequences of differing vocational attitudes among worker, supervisor and employer. The Importance Questionnaire is a test of 20 items relating to job conditions or opportunities, each rated on a scale of from very important to very unimportant. The Employment Satisfaction Questionnaire has 20 items measuring job satisfaction on a scale from very unsatisfied to very satisfied. The Job Conditions Questionnaire is an 8-page questionnaire concerning perceived work environment. The Job Expectancy Rating is a single-page rating for for evaluation by workers of six basic job conditions. The Job Importance Prediction Scale is a 12-item scale filled out by workers and supervisors to check for congruencies and discrepancies between the two groups regarding important job conditions. (Colorado State University).

Employee Competency Scale - ECS provides supervisory ratings for employees on the following scales: communication, dependability, attitude, job competence, and leadership. This instrument takes 10-20 minutes to complete. (Psychologists and Educators Press).

Employment Readiness Scale - ERS was designed to measure a person's readiness for work by assessing work values. It is especially applicable for high school students going to work upon graduation in an unskilled, semi-skilled or skilled employment setting. (Anthony M. Alfano).

Employment Seeking Skills - ESE assesses skill and knowledge in the following aspects of seeking employment: a) anticipating job prospects, b) finding and interpreting facts and sources of information about available jobs, c) identifying appropriately written letters, resumes, and application forms, d) describing appropriate appearance and behavior as one is interviewed and evaluated for a job, and e) evaluating when a specific job fits a person's needs and interests. It takes about 40 minutes to complete. (The College Board).

Goodwin Work Orientation Questionnaire - The WOQ was developed to measure attitudes, goals, beliefs, and intentions regarding the world of work. The instrument consists of several sets of questions about work that are rated on a scale of responses from "agree" to "disagree." (The Brooking's Institution).

How I See Myself, Secondary Form - This instrument measures self esteem for individuals at the 9th-12th grade levels, and takes about 20-30 minutes to complete. (School of Education--UNC, Chapel Hill).

Indik Work Motivation Scales - This is an interview format test designed to estimate work motivation. The interviewer reads a collection of statements and asks the interviewee whether he/she agrees strongly, agrees mildly, is undecided, disagrees mildly, or disagrees strongly. Also, data are collected by having the interviewee choose one of four possible endings to unfinished statements read by the interviewer. Six areas of motivation are assessed: the motive to work, the motive to avoid work, the expectancy to work, the expectancy to avoid work, the incentive to work and the incentive to avoid work. (Rutgers University).

Job Analysis and Interest Measurement - This instrument measures coping skills important to performance and satisfaction in work roles. It was designed to measure factors such as "getting along" (coping) by determining the degree of match between requirements and potentials of jobs and the individual's self reported behavior, activity preference, and values. JAIM provides scores for 32 specific scales including self-confidence, orderliness, perseverance, assertiveness, dependability, and emotional control. Completion time is 30-40 minutes. (JAIM Research, Inc.).

Job Acquisition and Retention - JAR measures mastery of objectives pertaining to job location and interview skills, as well as knowledge and understanding of job retention skills. (TEXAS Education Agency).

Job Corps Revised World of Work Program - The World of Work Program is an individualized, competency-based, open entry-open exit effort to provide Corps members with job search, employability and adult survival skills, occupational knowledge, and consumer economies. Students are pretested for mastery in each major skill area and assigned to study only the areas that they have not mastered. A study plan is developed for every individual. In each area of assigned study, students are required to master specific objectives in order to advance and complete the program. Additionally, each youth develops a set of applied skills (resume, sample application forms, interview techniques) which provide real evidence of his/her mastery. (Job Corps).

Jorganson Interpersonal Relationship Scales - JIRS contains two instruments designed for a research study of the relationship between interpersonal facility and placement success. The Social Vocabulary Index consists of six scales: a) the self-concept scale, a 20-item test of opinions of self consisting of statements beginning with "I am..."; responses are chosen from frequency alternatives (most of the time--hardly ever), b) the self-acceptance scale, a 20-item adjective check list, c) the ideal self scale, with the same items as the self-concept scale, except that the statements are stemmed "I would like to be...", d) concept of other scale, also having the same items, but stemmed "Other people are...", e) a vocabulary scale, designed to measure subjects' reading comprehension, and f) a social desirability scale, consisting of 33 statements about personal behavior which the subject is asked to rate true or false for himself.

The Revised Interaction Scale, the other instrument used in this study, is a two-part paper-and-pencil questionnaire that is used by both counselor and counselee to rate the counseling interaction. (University of Utah).

Knowledge of Occupations Test - KOT was designed to measure the extent to which high school students have occupational knowledge. This includes information regarding job descriptions, training, certification and licensing, employment trends, tools, terminology, and earnings, as well as the ability to interpret occupational material. The test contains 96 questions grouped into these eight categories, and takes 40 minutes to complete. (Psychologists and Educators, Inc.).

Mandell NYC Program Interview Forms - These intruments were designed to gather data about job perceptions of Neighborhood Youth Corps enrollees. (Wakoff Research Center).

Minnesota Importance Questionnaire - The MIQ measures psychological needs and values found relevant to work satisfaction. The 20 needs scales include security, compensation, achievement, recognition, authority, creativity and activity, while values scales encompass such items as altruism, autonomy, comfort, safety and status. It is appropriate for individuals age 16 and above. (Vocational Psychology Research).

Missouri Occupational Preference Inventory - MOPI assists clients in exploring career options and understanding reasons behind occupational choices. It is suitable for a wide client population, including college and high school students and employment/training program participants. Total administration time is two hours. (Human Systems Consultants, Inc.).

Mooney Problem Check List - Designed chiefly to identify problems for group discussion or for individual counseling, this checklist drew its items from written statements of problems submitted by about 4,000 high school students. The checklist is available in junior high, high school, college, and adult forms. The problem areas covered vary somewhat from level to level. In the high school and college forms, they include health and physical development; finances, living conditions, and employment; social and recreational activities; social-psychological relations; personal-psychological relations; courtship, sex, and marriage; home and family; morals and religion; adjustment to school work; the future--vocational and educational; and curriculum and teaching procedure. Although the number of items checked in each area can be recorded, the Mooney Problem Check List does not yield trait scores or measures of degree of adjustment. Emphasis is on individual items as self-perceived and self-reported problems or sources of difficulty. (The Psychological Corporation).

My Vocational Situation - This tool provides information about an individual's vocational identity (does the individual have a clear idea of his/her goals, interests, personality and talents?), occupational information (does that person need more information?), and barriers (what external barriers exist that may keep an individual from pursuing his/her particular career choice?). (Consulting Psychologists Press, Inc.).

National Assessment of Educational Progress--Career and Occupational Development Exercises - NAEP developed these exercises to survey the educational attainment of 9, 13, and 17 year-old youth in the areas of career and occupational development. They are objective based episodes and assess career decision making, vocational abilities, skills useful in the world of work, effective work habits, and job related attitudes. (National Assessment of Educational Progress).

New Mexico Career Education Test Series - NMCETS was developed to assess specific learner objectives in the area of career education. It contains the following components: Attitude Toward Work, Career Planning Test, Career Oriented Activities Checklist, Knowledge of Occupations, Job Application Procedures, and Career Development Test (Monitor).

New Mexico Statewide Evaluation Program - This instrument provides data concerning knowledge of the following: a) career planning and decision-making, b) the role that job characteristics and requirements play in the selection of a career, c) applying for a job, and the needed skills and behaviors, and d) basic attitudes, values and responsibilities necessary to maintain a job and advance beyond the entry level of an occupation. (Evaluation, Assessment, and Testing Unit--New Mexico State Department of Education).

Non-Sexist Vocational Card Sort - NSVCS focuses on the exploration of feelings, values, needs, interests, fears, fantasies, life style preferences and the internalized sex, race or class stereotypes which limit the vocational options clients perceive to be open to them. It can be used for high school level clients and takes two hours to administer. (NSVCS).

Occupational Awareness Inventory - OAI was designed to determine an individual's awareness of careers through testing his/her career information knowledge. It is a multiple choice instrument appropriate for junior high level students who have been exposed to a career awareness program. (Evaluative Research Associates, Inc.).

Occupations and Careers Information BOXSCORE - BOXSCORE assesses basic knowledge of occupational information. The questions included in the test involve the following kinds of information: work performed, entry requirements (schooling), licensing requirements, rewards (earnings), and occupational outlook, as well as general information on the world of work. (Chronicle Guidance Publications, Inc.).

Occ-U-Sort - This process was developed to: a) stimulate career exploration, b) facilitate occupational decision-making, c) promote individual thinking about motives for choosing occupations, d) sharpen self-perceptions in the context of meeting career needs, e) broaden career options, and f) provide a framework for understanding the wider world of work. It is appropriate for junior and senior high school students, college students, and adults, and requires approximately one hour to administer. (Publishers Test Service).

Ohio Work Values Inventory - OWVI consists of 77 items that measure eleven significant work values. They include altruism, object orientation, security, control, self-realization, independence, money, task satisfaction, solitude, ideas/data orientation, and prestige. (CTB/McGraw-Hill).

Orientation to Career Concepts Series - OCCS assesses what students know about 10 important aspects of the world of work: a) work awareness, b) worker activities, c) vocational vocabulary, d) occupational incongruities, e) occupational similarities, f) occupational tools, g) ability to relate an individual's interests, abilities, and hobbies to possible occupations, h) working conditions, i) occupational training, and j) worker's earnings. The entire battery requires about three hours to complete. (Evaluative Research Associates).

Personal Reaction Blank - PRB assists personnel officers in selecting new employees. It employs 70 interest and attitude items and yields a single score designed to measure a dependability-consciousness factor among rank and file workers. The instrument normally takes 10-15 minutes to complete. (University of California at Berkeley).

Program for Assessing Youth Employment Skills - PAYES contains a battery of seven tests designed specifically for use with disadvantaged youth. It consists of three separate booklets. Booklet 1 contains three attitudinal measures; Booklet 2, three cognitive ones; and Booklet 3, a vocational interest inventory. Job-holding skills, attitude toward supervision and self-confidence are the three major attitude areas covered. Cognitive measures of job knowledge, job-seeking skills and practical reasoning also are surveyed. The measures are designed for adolescents and young adults with low verbal skills; pictures help to clarify many of the questions presented. The pictures in this "unisex" test battery are designed so that all items are equally appropriate for males and females.

PAYES is administered orally to small groups in an informal manner. (Cambridge Book Company).

Self-Directed Interest Inventory - The purpose of SDII is to obtain information regarding students' activities, occupations, and abilities as they relate to career interests. The five sections of the inventory consist of a) listing the occupations they have considered, b) indicating the activities they like or dislike, c) evaluating the competencies they possess in performing different activities, d) rating occupations they find interesting or not interesting, and e) making self-estimates of their own abilities in different areas. Total time required is approximately 30 minutes. (Research for Better Schools, Inc.).

Self Evaluation and Development Skills - SEDS reveals skill and knowledge in the following aspects of self-understanding, and the extent of awareness of the characteristics and behavior of other people: a) understanding individual differences, b) evaluating individual characteristics and understanding test results, c) changing personal characteristics and behavior, d) locating and interpreting information about self, and e) applying knowledge about self to career opportunities. It takes 60 minutes to complete. (The College Board).

Self Interview Check List - This vocational interest instrument is used with the Cleff Job Matching System. It produces two applicant profiles: one describes activities preference, and the other describes activities experience, arranged according to 16 dimensions of work. Results can then be compared with data on

the characteristics of the jobs, organized under the same basic dimensions. (Center for Human Technology).

Standardized Assessment System - The SAS was developed to test the relative effectiveness of a wide variety of youth employment and training programs. The SAS pre and post program battery measures specific work related competencies on the following scales: vocational attitude, job knowledge, job holding skills, work relevant attitudes, job seeking skills, sex stereotyping of adult occupations, and self esteem. The Standardized Assessment System also includes the STEP Locator Reading Test, and rating forms on enrollee behavior to be filled out by counselors, work supervisors, and employers. (Educational Testing Service).

STS Youth Inventory - This instrument is a checklist of needs and problems and is suitable for individuals at the 7th-12th grade levels. Items are grouped under the following catagories: "My School," "After High School," "About Myself," "Getting Along With Others," and "Things in General." A helpful device incorporated into STSYI is the use of different sized response boxes to enable the respondent to suggest the magnitude of each problem. (Scholastic Testing Service, Inc.).

Survey, Secondary School Form - This instrument measures knowledge of occupations and educational career relationships, as well as self concept and personal values. (Union County Board of Education--Career Based Curriculum Project).

Tests for Everyday Living - TELs measure knowledge of life skills necessary to successfully perform everyday life tasks, such as shopping, using bank accounts, managing one's personal finances, obtaining and keeping a job, and maintaining one's health. The seven tests are: job search skills, job related behavior, health care, home management, purchasing habits, banking, and budget. (CTB/McGraw-Hill).

Texas Career Education Measurement Series - TCEMS consists of a battery of sixty-three paper-and-pencil instruments and a general survey test. The sixty-three Basic Learner Outcome Tests are designed to measure student development within nine career education categories. These categories are career planning and decision making, career and occupational information, job acquisition and retention, attitudes and appreciation for career success, skills in human relationships for careers, self investigation and evaluation for career success, personal/work/societal responsibilities, economic factors influencing career opportunity, and education/career opportunity relationships. (I(t) Work(s), Inc.).

TSENG Rating Scales - These short scales were developed for measuring self perception, locus of control, and need for achievement. They were utilized in these related studies designed to investigate relationships between work related characteristics and personality traits. (West Virginia University).

USES Interest Checklist - This interviewing aid is used to obtain information on the range of vocational preferences. It is particularly useful with persons who have no definite work interests or who have limited knowledge of the variety of jobs and occupational fields. The checklist enumerates 173 items that have been keyed to the Worker Trait Arrangement (WTA) and Occupational

Group Arrangement (OGA) of the third edition of the Dictionary of Occupational Titles. (U.S. Government Printing Office).

Vocational Exploration Demonstration Project - VEDP provided an educational and motivational experience through which program participants could: a) learn about the world of work and the labor market, b) become aware of and acquainted with different occupations, jobs and career opportunities, c) gain the knowledge and perspective to help them make decisions about their future, and d) develop a firm behavioral and attitudinal foundation from which to proceed into the realm of employment. The VEDP Year II Benchmark Assessment System was designed to document youth acquisition of entry level competencies in the pre-employment and work maturity areas. The BAS was curriculum referenced and learning objectives based, and encompassed behavioral observation, product review, and experiential episodes as evaluation procedures. (St. Louis University Center for Urban Programs).

Vocational Interest, Experience, and Skill Assessment - VIESA is a self scored inventory of career related interests, experiences, and skills supplemented by an informal ranking of job values. It facilitates self/career exploration on the part of persons in the early stages of educational and vocational planning or replanning. There are two levels: grades 8-10 and grades 11-Adult. VIESA, designed to widen the range of careers usually considered by males and females, can be administered in 45 minutes. (American College Testing Program).

Vocational Planning Inventory - VPI provides individual predictions of success in major vocational curriculum areas by measuring a student's general ability, specific aptitudes, achievement, and values. The resulting test score data are transformed into estimates of the average grades a student would most probably receive in courses in specific vocational curriculum areas as well as in vocational and academic subjects as a whole. BPI consists of separate subtests of: pictorial reasoning, expression, assembly, memory, arithmetic, values, general ability, and mechanics. It requires approximately 3 hours to complete. (Science Research Associates, Inc.)

Work Effectiveness Skills - WES indicates skill and knowledge in the following aspects of working on a job: (a) identifying the responsibilities of employers and employees to each other, (b) developing effective work habits, (c) achieving effective working relationships with co-workers, (d) managing work situations to achieve personal satisfaction, (e) giving and receiving supervision effectively, (f) advancing on the job, and (g) planning job changes. It takes about 60 minutes to complete. (The College Board.).

Work Relevant Attitudes Inventory - WRAI consists of 26 items arranged into three scales: optimism, self confidence, and unsocialized attitudes. It can be used to help diagnose the needs of new program participants. (George Washington University.).

Work Values Inventory - WVI is a self report inventory designed to measure the satisfactions which men and women seek in work, and the satisfactions which may accompany the outcomes of work. Scales include altruism, creativity, aesthetics, intellectual stimulation, independence, achievement, prestige, management, economic returns, security, surroundings, supervisory relations associates, variety, and way of life. Total administration time is 15-25 minutes. (The Riverside Publishing Company - a Houghton Mifflin Subsidiary).

C. BASIC EDUCATIONAL SKILLS ASSESSMENT INSTRUMENTS

Adult Basic Learning Examination - ABLE is a four-part test battery designed to measure educational achievement among adults, primarily those who have not completed formal 12th-grade education. There are three levels of the ABLE. At each level there are tests of vocabulary, reading, spelling, and arithmetic (problem solving and computation). The ABLE Reading Test contains a great variety of content, with heavy emphasis on the everyday life of adults, and is designed to yield a general estimate of literacy. A separate test, called SelectABLE, may be used to determine which level of ABLE is appropriate for a given examinee. Administration of ABLE is not timed, but the Reading test probably would require about 30 minutes to complete for most examinees. (The Psychological Corporation).

Adult Performance Level Program - APL is an objectives based assessment program designed to measure the life skills proficiency of both young and mature adults. Rather than emphasizing purely academic knowledge, the Program focuses on basic tasks that are highly relevant to everyday living. The basis of the APL Program is a two-dimensional model of functional competency that emphasizes the application of fundamental skills to practical situations. The skill dimension of the program includes identification of facts and terms, reading, writing, computation, and problem-solving—all considered important for successful living in our society. The practical situations or content dimensions of the program have been organized into five major areas. These are community resources, occupational knowledge, consumer economics, health, and government and law. These content areas include most of the situations judged to be critical in the daily life of successful adults. (American College Testing Program).

Analysis of Learning Potential - This instrument measures learning potential, and provides two scores—one based on comparisons with examinee's own age group and another based on comparisons with examinee's grade group. It also offers reading and mathematics composite prognostic scores. (Harcourt Brace Jovanovich).

Analysis of Skills: Language Arts - ASLA is an objective-referenced and norm-referenced test measuring skills in capitalization and punctuation, usage, and sentence knowledge/composing process. Each of 36-58 skills are tested by three items, and the results are given as mastery, partial mastery and non-mastery of each skill. The test is available in six levels. Appropriate administration times vary from 60 to 90 minutes. (Scholastic Testing Service, Inc.).

Analysis of Skills: Mathematics - ASM is an objective-referenced and norm-referenced test measuring skills in the following areas: computational skills, concepts, and applications. Skill scores are provided for positive whole numbers, fractions, and decimals, negative integers, computational processes, numbers and numeration systems, properties, and theory, set notation and operation, common measures, metric and nonmetric geometry, percents, statistics and probability, trigonometry, functions and graphs, ratios and proportions, mathematical sentences and algebra, everyday problems, and use of specific concepts. Each skill is tested by three items, and the results are given as mastery, partial mastery, and nonmastery of each skill. Approximate administration times vary from 100-180 minutes, divided among three testing sessions. (Scholastic Testing Service, Inc.).

Analysis of Skills: Reading - ASR is a criterion and norm referenced test measuring skills in the following areas: word analysis, comprehension, and study skills. Test completion time is 135-175 minutes. (Scholastic Testing Service).

Assessment of Skills in Computation - ASC measures junior high school students' ability to handle computational problems typically encountered in school, home, and community situations. The ASC program provides diagnosis of skill strengths and needs and instructional prescriptions to remediation in each area of need. It prepares students for successful performance on competency-based tests for graduation from senior high school. (CTB/McGraw-Hill).

Basic Skills in Arithmetic Test - BSAT assesses an individual's ability to perform forty-three fundamental skills in arithmetical operations involving whole numbers, fractions, decimals, and percentages. Test results can be used in determining group and individual instructional needs. In industrial settings, the results can be used to aid in the selection and placement of personnel in positions which require basic computational skills. (Science Research Associates, Inc.).

California Achievement Tests - CAT measures educational attainment and diagnoses learning difficulties in basic skills. It provides scores in reading (vocabulary and comprehension), arithmetic (reasoning and fundamentals), and language (mechanics and spelling). (CTB/McGraw-Hill).

Comprehensive English Language Test for Speakers of English as a Second Language - CELT is a measure of the English proficiency of persons high school age and above who are learning English as a second language. The listening test is concerned with the comprehension of short statements, questions, and dialogues as spoken by native speakers of English, it is designed for use in programs of English as a second language at the intermediate and advanced levels. (McGraw-Hill Book Company).

Cooperative English Tests - These tests measure achievement in two fundamental areas: reading comprehension and english expression. Reading comprehension is further broken down into vocabulary and reading (level of comprehension and speed of comprehension). English expression also consists of two parts (effectiveness and mechanics). There are three parallel forms of each test. Testing time is 40 minutes per test. (Educational Testing Service).

Comprehensive Tests of Basic Skills - These instruments were designed to measure the basic skills involved in the broad areas of reading (vocabulary, comprehension), language (mechanics, expression, spelling), mathematics (compulation, concepts, applications), reference skills, science, and social studies. The time required to administer the entire battery is 184-268 minutes, depending on the level. (CTB/McGraw-Hill).

Cornell Learning and Study Skills Inventory - This instrument aids in the assessment of factors which are related to learning problems and school performance. The inventory can be used with a sixth grade or higher reading level. (Psychologists and Educators, Inc.).

Diagnostic Mathematics Inventory - DMI can be utilized to a) diagnose strengths and needs in mathematics, b) prescribe relevant learning experiences in mathematics skills, and c) evaluate attainment of specific mathematics objectives after a period of instruction. (CTB/McGraw-Hill).

Diagnostic Reading Scales - DRS's consist of an individually administered series of graduated tests containing three word-recognition lists, 22 reading passages, and eight supplementary phonics tests. The graded word-recognition lists yield a tentative level of performance that is used to determine the examinee's entry level to the reading passages. The reading passages are used to establish three reading levels for the examinee: instructional level (oral reading), independent level (silent reading), and potential level (auditory comprehension). (CTB/McGraw-Hill).

Diagnostic Reading Tests - DRT's comprise three separate batteries designed to cover all grade levels from kindergarten through the freshman year of college. The basic plan of each battery includes a survey section designed to assess general reading proficiency and a number of supplementary diagnostic tests for appraising specific reading skills. The entire battery need not be given to each individual. Teachers may choose tests in those areas in which the individual exhibits special difficulties, as indicated by his performance on the survey tests. (Committee on Diagnostic Reading Tests, Inc.).

Everyday Skills Tests - EDSTs are survival skills tests for junior high schools that measure the skills in reading and mathematics necessary for effective participation in today's complex society. They provide, in a single instrument, criterion-referenced measures of basic competencies as well as norm-referenced data for monitoring achievement in relation to a national sampling of the student population. (CTB/McGraw-Hill).

Fundamental Achievement Series - Designed as an achievement test for people with below average exposure to formal education, FAS is administered by tape-recording and test booklets to adolescents and adults with an ability range from basic literacy to somewhat above the eighth grade. The verbal and numerical sections measure practical achievements, such as reading signs and menus, finding numbers or names in a list, recognizing numbers and correctly spelled words, telling time, using calendars, understanding orally presented information, and solving computational problems of varying difficulty. (The Psychological Corporation).

General Educational Performance Index - GEPI was devised to measure the extent to which adults are ready to attempt the General Educational Development test. The five subtests include writing, reading, mathematics, social studies, and science. Administration time is approximately three hours. Test scores may be useful for grouping for instructional purposes or following progress in test-retest situations. (Steck-Vaughn Company).

Gilliland Learning Potential Examination - GLPE is a measure of intelligence designed specifically for individuals who are either non readers or poor readers, and native and rural Americans. Scores reported include visual memory, symbolic representation, symbol identification, relationships, listening comprehension, picture completion, and general information. (The Reading Clinic--Eastern Montana College).

High School Equivalency Test Guide - This instrument is a test primer for the GED, similar in some aspects to the General Education Performance Index. Subscores are available in the following areas: correctness and effectiveness of expression (spelling, capitalization, punctuation, usage, effectiveness of expression, diction and style), interpretation of reading materials in literature, social studies and general science, and general mathematical ability. (P.A.R., Inc.).

Individual Reading Placement Inventory - IRPI is an individually administered aid in determining the student's independent reading level, frustration level, and present language potential. The Inventory is designed specifically for illiterate and semiliterate adolescents and adults. Subscores are word recognition and analysis, oral paragraph reading, present language potential, auditory discrimination, and letters of the alphabet. After administering the Inventory, the examiner completes the Checklist of Reading Difficulties, a form for recording observations concerning possible posture problems, emotional symptoms, reading rate difficulties, and sight-sound perceptual problems. (Follett Educational Corporation).

Individualized Criterion Referenced Testing: Math - ICRTM consists of eight levels of tests measuring 312 objectives in the following areas: sets, bases/numeration systems, addition and subtraction/whole numbers, place value, equations and inequalities, properties of addition and subtraction, money, time, geometry, fractions, measurement, word problems, multiplication of whole numbers, division of whole numbers, properties of multiplication and division, multiples/prime and compositon, factorization, estimation and rounding, graphs and scale drawings, decimals and percents, exponential notation, ratio and proportion, and operations of rational numbers/integers. (Educational Development Corporation).

Individualized Criterion Referenced Testing: Reading - ICRTR's objectives include letter recognition, phonetic analysis, structured analysis, literal and critical comprehension, and vocabulary. (Educational Development Corporation).

Iowa Tests of Basic Skills - ITBS provides scores on the following scales: vocabulary, reading comprehension, language (spelling, capitalization, punctuation usage), work study skills (graphs, reference materials, tables, maps), and arithmetic skills (concepts, problem solving). Time required for completion is a little over six hours. (Houghton Mifflin).

Iowa Silent Reading Tests - The test appraises vocabulary, reading comprehension, and speed of reading with comprehension. Level 1 (grades 6-9) and Level 2 (grades 9-14) also assess use of reference materials and skimming/scanning for specific information. ISRT provides a reading efficiency index which measures reading speed and accuracy. Testing time is 80 minutes. (Harcourt Brace Jovanovich).

Iowa Tests of Educational Development - ITED measures broad and generalized intellectual skills and abilities. The following items are assessed: understanding of basic social concepts, background in the natural sciences, correctness and appropriateness of expression, ability to think quantitatively, ability to interpret reading materials in social sciences,

ability to interpret reading materials in natural sciences, ability to interpret literary materials, general vocabulary, and uses of sources of information. Completion time is two days. (Science Research Associates, Inc.).

IOX Basic Skill Tests - There are three Basic Skills Tests, one each in reading, writing and mathematics. In each of these tests, distinct skills are measured by separate subtests--five in reading (understanding safety warnings, completing forms and applications, using common reference sources, determining main ideas, using documents to take action), four in writing (using words correctly, checking mechanics, selecting correct sentences, expressing ideas in writing), and four in mathematics (performing basic calculations, solving everday problems requiring single arithmetic operations, solving everyday problems requiring formulas, solving everday problems requiring multiple arithmetic operations). (Instructional Objectives Exchange).

Job Corps Diagnostic/Unit Mathematics Tests - The foundation of the Job Corps mathematics program are the Diagnostic/Unit tests. There is a D/UT for each of the 23 units in the program, with five different but equivalent forms for each test. When a D/UT is administered before the students enter a lesson, it is used as a diagnostic test. When a different but equivalent D/UT is used to assess mastery following an assignment in the unit, it is considered a unit test. Corpsmembers take a D/UT to determine if they must complete the corresponding assignment. Students who score 80 percent or higher on the diagnostic test may by-pass the assignment and proceed to the next unit's diagnostic test. (Job Corps).

Job Corps Mathematics Skills Inventory (MJSI) - Students are placed into the Job Corps mathematics program on the basis of their score on this instrument. The rating achieved on the MJSI slots students into one of four more precise screening tests. (Job Corps).

Job Corps MJSII Skills Inventory - The MJSII Should be given to all students who score 0-60 on the Job Corps Mathematics Skills Inventory (MJSI). Although there is no exact time limit for the MJSII, Corpsmembers should not be allowed more than 45 minutes to complete the test. (Job Corps).

Job Corps Reading Placement Test #1 (JCRP1) - The Job Corps Reading Placement Test #1 (JCRP1) is used to place students more precisely in a reading level. It is a compilation of the most valid items from tests which were formerly used in Job Corps. The items were revalidated on a large sample of Job Corps students in February, 1979. The test contains 64 items and takes exactly 35 minutes. (Job Corps).

Job Corps Reading Screening Test #1 (RJS1) - The Job Corps Reading Screening Test #1 (RJS1) provides an indication of the approximate level at which a corpsmember will enter the reading program. More precise placement will then be made by the Job Corps Reading Placement Test (JCRP1). The RJS1 will be administered to all corpsmembers. The time limit for completing the RJS1 is thirteen minutes. This time limit must be strictly observed. There are 27 questions on the RJS1. However, only 25 questions (3 to 27) are scored because questions one and two are samples. (Job Corps).

Leiter International Performance Scale - LIPS is an individually administered, non-verbal intelligence test which is appropriate for persons with speech and auditory handicaps, illiterates, the foreign born, and the educationally and culturally deprived. The test consists of a series of subtests which require matching, ranging from the pairing of like colors and objects to more complex relationships of designs and analogies. (Stoelting Company).

Metropolitan Achievement Tests--Reading Comprehension Test - MAT is a battery of norm-referenced and criterion-referenced achievement tests designed for use with individuals through 12th grade level. The RCT is one element of this battery, and was designed to yield an instructional reading level for each pupil. MAT-RCT has an administration time of 40 minutes. (The Psychological Corporation)

Minimum Essentials Test - MET measures student achievement in reading, language, and mathematics, and provides information on the student's ability to apply basic skills to life situations. An optional writing test is included. The 124-item test requires about one and one-half hours to administer. The reading section covers literal comprehension, inferential comprehension, context clues, and main idea. The language section assesses knowledge in punctuation, capitalization, and sentence structure. The mathematics test covers basic arithmetic operation for whole numbers, fractions, decimals and percents. The life skills section tests the application of those skills in communication, finance, government and law, health, safety and nutrition, transportation, and occupations. (Scott, Foresman and Company).

Nelson-Denny Reading Test - This instrument assesses vocabulary, reading comprehension, and reading rate. It requires 30 minutes for completion. (Houghton-Mifflin Co.).

Otis-Lennon Mental Ability Test - This instrument measures verbal conceptualization, quantitative reasoning, general information, and ability to follow directions. It requires about 25-30 minutes to complete. (Harcourt, Brace & World, Inc.).

Performance Assessment in Reading - PAIR provides identification of learner needs in basic reading skills, and instructional prescriptions referenced to these skills. The 72-item test is divided into two sections for administration: reading enabling skills and life role applications. Each section requires approximately 50 minutes to complete. Reading subtests include vocabulary, literal comprehension, critical comprehension, and location/study skills. Life role applications include pictorial representation, reference, forms and documents and rules and regulations. Local programs set the standards of mastery. (CTB/McGraw-Hill).

RBH Basic Reading and Word Test - This instrument was designed to aid in establishing minimum reading skills or literacy by measuring reading vocabulary and comprehension. The test, which covers a broad reading and vocabulary range, is recommended for use in situations where a quick measure of reading level is necessary. (Richardson, Bellows, Henry and Company, Inc.).

Senior High Assessment of Reading Performance - SHARP is a proficiency test that measures competencies in reading skills that are necessary for everyday life. SHARP is designed to be used as an outcome measure of a competency-based education program that emphasizes the student's ability to apply basic reading skills in the life-role situations. SHARP can be used to demonstrate to the schools and to the community that students have mastered the essential reading skills necessary for effective functioning as adults. (CTB/McGraw-Hill).

Sequential Tests of Educational Progress - These tests are available in four levels, suitable for grades 4-6, 7-9, 10-12, and 13-14. Each level contains six multiple-choice tests: reading comprehension, writing, mathematics, science, social studies, and listening comprehension. All tests are available in two parallel forms and are published in separate booklets that may be obtained individually. Each of the six tests requires 70 minutes and can be administered in a single session or in two 35-minute sessions. (Educational Testing Service).

Short Form Test of Academic Aptitude - SFTAA yields language and non-language scores, and consists of four subtests, including vocabulary, analogies, sequences, and memory. The five levels of the test span grades 1.5-12. Testing time is 31-38 minutes. (CTB/McGraw-Hill).

SRA Non Verbal Form - This instrument measures reasoning and concept formation independently of language and reading skills. Items consist of a series of drawings of people, objects or geometric forms, four of which are related. The examinee is required to discover the interrelating principle and indicate the drawing in each series that is most different. The test is recommended for use in screening individuals who have difficulty with reading or language or in screening for jobs in which reading and communication skills have little relationship to successful performance. (Science Research Associates, Inc.).

SRA Pictorial Reading Test - This test measures reasoning and concept formation which is relatively independent of language and reading skills. Items consist of five drawings or pictures, four of which are related. The examinee must discover the interrelating principle. The test is appropriate for selection and placement. It is especially useful with persons who have language or reading difficulties. Recommended usage is in the selection of applicants for jobs in which writing and communication skills contribute little to successful performance. The test can also be used by companies and agencies participating in retraining programs for displaced adult workers or school dropouts in order to identify persons most likely to benefit from the program. (Science Research Associates, Inc.).

Stanford Achievement Test - The elementary school portion of this battery, comprising four levels that span grades 1 to 9, yields scores in reading, language arts (chiefly spelling and language usage), arithmetic (computation, concepts, and applications), social studies, and science. The basic high school battery includes tests in English, numerical competence, mathematics, reading, science, social studies, and spelling. Additional high school tests are available in arts and humanities, business and economics, and technical comprehension in industrial arts. (Harcourt, Brace & World).

Stanford Test of Academic Skills - Each level of the TASK battery contains three subtests: reading, English and mathematics. Testing time is 80 minutes. (Harcourt Brace Jovanovich).

Stanford-Binet Intelligence Scale - This test covers an age range from two years to adult. It is individually administered, with items grouped by age levels. At preschool levels, items stress the ability to follow directions, identification of common objects and parts of the body, memory, and sensory-motor and perceptual skills. By about age six the emphasis shifts to verbal skills (e.g., vocabulary, analogies, similarities and differences), perceptual and verbal discriminations, and simple quantitative skills. At older ages, the item content becomes more verbal and more abstract. On the whole, the test is heavily weighted with verbal material, with quantitative skills playing a relative minor role. (Houghton Mifflin).

Steck-Vaughn Placement Survey for Adult Basic Education - This instrument is designed to assess skills from a nonreading level through 8th grade. Skills are assessed in the areas of reading, language, and mathematics and include phonics, vocabulary, comprehension, capitalization, punctuation, spelling, English usage, money, word problems, and operations with whole numbers. Test administration time is approximately 15 minutes for each section, or 45 minutes for the entire survey. A word list is used as an initial screening device to prevent learners from experiencing excessive frustration when taking certain parts of this survey. (Steck-Vaughn Company).

Sullivan Associates Programmed Reading System - SAPRS is the basis for instruction in the Job Corps beginning reading program. Placement into the Sullivan materials is determined by administering the Sullivan Placement Examination, a series of 16 short tests. (Job Corps).

Test of Adult Basic Education - TABE provides information about a student's level of achievement in the basic skills of reading, mathematics and language. It analyzes the needs of adults and out of school youth who wish to undertake vocational-technical training, general literacy, or self improvement study. There are three forms of TABE—easy, medium, and difficult. A locator test determines which level is appropriate for a participant. Test administration time ranges from 90 minutes for easy to 150 minutes for difficult. (CTB/McGraw-Hill).

Test of Everyday Writing Skills - TEWS is a competency test in writing or composition skills that assesses the application of these skills to everyday life situations. It measures virtually all aspects of writing that students need to perform as adults, including mechanics, spelling and punctuation, usage, and sentence and paragraph construction. (CTB/McGraw-Hill).

Tests of General Ability - TOGA is a nonverbal, pictorial measure of intelligence designed to be independent of reading, arithmetic, and other scholastic tasks. The test takes about 45 minutes and has a range from kindergarten through grade 12. Like many other nonverbal measures, TOGA is especially aimed toward children from culturally deprived backgrounds. An examinee's score on Part I of the test is a measure of the information, vocabulary, and concepts that he has acquired. The score on Part II is a measure of noncultural reasoning ability, and the total score is an overall, nonverbal measure of general intelligence. (Science Research Associates, Inc.).

Tests of General Educational Development - The GED was specifically designed to measure the educational achievements of people who have not graduated from high school. It assesses broad intellectual abilities and skills that do not depend on specific subject matter courses. Scores on the GED are used as the criteria for granting high school equivalency certificates. GED scores can also be used to gain admission to licensing examinations for professions which require the completion of the ninth, tenth, or eleventh grades. The tests included in the GED battery are correctness and effectiveness of expression, interpretation of reading materials in the natural sciences, interpretation of reading materials in the social studies, interpretation of literary materials, and general mathematical ability. (American Council on Education).

USES Basic Occupational Literacy Test - BOLT assesses basic reading and arithmetic skills of school dropouts for referral to occupational training or remedial education. The scores reported are: a) reading vocabulary, b) reading comprehension, c) arithmetic computation, and d) arithmetic reasoning. The instrument is essentially self administering and requires about one hour to complete. (U.S. Government Printing Office).

Wide Range Achievement Test - WRAT is an individual test for clinical use, indicating level of skill in oral reading, spelling and arithmetic computation. The examiner adjusts the testing range to the achievement level (kindergarten through college) of the individual. This is used in remedial and vocational studies of children and adults. The test time is fifteen to thirty minutes. (The Psychological Corporation).

Word and Number Assessment Inventory - WNAI measures verbal and mathematical abilities and then compares these scores with those of various educational and occupational groups at similar skill levels. It provides career information relevant to the scores and offers suggestions for improving word and number skills. The instrument is appropriate for persons at the 9th-12th grade levels, as well as adults. (NCS Interpretive Scoring Systems).

D. JOB SPECIFIC SKILLS ASSESSMENT INSTRUMENTS

Appraisal of Occupational Aptitudes - AOA consists of eight sub-tests: checking letters, checking numbers, filing names, filing numbers, posting names, posting numbers, arithmetic computation and reasoning, and using desk calculators. It is intended for selection and counseling regarding business and office careers. (The Psychological Corporation).

APTICOM - This computer based assessment tool consists of a desk top unit on which the examinee attempts to complete a number of tasks involving cognitive and manipulative abilities. APTICOM produces an aptitude profile, and requires about 90 minutes to administer. (Vocational Research Institutes - Jewish Employment and Vocational Service).

Aptitude Tests for Occupations - The tests provide useful information on individual aptitudes related to specific occupations and careers. They are for use with high school students, college students, and adults. The full battery is composed of six instruments which measure the following aptitudes: a) personal-social, b) mechanical, c) general sales, d) clerical routine, e) compulation, and f) scientific. Total completion time is 1 hour and 47 minutes. (PRO-ED).

Bennet Hand-Tool Dexterity Test - The Bennett Test measures manual dexterity and gross motor coordination. The subject is required to remove twelve bolts from one vertical board and replace them on another. Four tools are used in the task, two open end wrenches, one adjustable wrench, and one screwdriver. (The Psychological Corporation).

Bennet Mechanical Comprehension Test - BMCT measures the ability to perceive and understand the relationship of physical forces and mechanical elements in practical situations important for a wide variety of jobs, for engineering, and for many trade school courses. A high score on this trait indicates an ability to readily learn the principles of operation and repair of complex devices, and helps in the screening and selection of persons for occupations requiring mechanical aptitudes. The test requires 30 minutes to complete. (The Psychological Corporation).

California Ability Placement Survey - CAPS is designed to measure abilities keyed to entry requirements for the majority of jobs in fourteen occupational clusters. It is usable as a separate standardized battery or as a component of the California Occupational Preference System. The instrument is appropriate for individuals at the 7th-12th grade levels, and requires 50 minutes for completion. (Educational and Industrial Testing Service).

California Occupational Preference System - COPS furnishes job activity interests scores and relates those scores to curriculum choice and career preference. The COPS Interest Inventory has scales that assess interest areas including science, consumer economics, outdoors, business, clerical, communications, arts, service and technology. Total administration time is 35 to 55 minutes, including self-scoring. (Educational and Industrial Testing Service).

Card Punch Operator Aptitude Test - The instrument was developed for trainee selection. There are two separately timed parts - an 80 item letter-digit

substitution subtest and a 150 item name-checking subtest. The two are combined for a single total score. (International Business Machines Corporation).

Clerical Skills Series - CSS reports scores on skills appropriate to clerical occupations. Scores include areas such as: alphabetizing-filing, clerical speed and accuracy, grammar and punctuation, and vocabulary. (Martin M. Bruce Publishers).

Comprehensive Career Assessment Scale - CCAS yields familiarity and interest scores for 15 areas (such as business and office, construction, manufacturing and public service). It can be utilized for needs assessment, curriculum planning, and/or evaluation. (Learning Concepts).

Computer Programmer Aptitude Battery - CPAB is widely used for selecting applicants for computer training or employment. It provides scores on verbal meaning, reasoning, letter series, number ability, and diagramming, and takes 90 minutes to complete. (Science Research Associates, Inc.).

Crawford Small Parts Dexterity Test - The Crawford measures eye-hand coordination and fine finger dexterity. The first part requires the use of tweezers to place small pins in holes one at a time and then place a collar over it. Part two consists of starting screws in holes using the fingers and then using a small screwdriver to screw them down. (The Psychological Corporation).

Dental Hygiene Aptitude Testing Program - Developed to screen and select dental hygiene school applicants, DHATP provides scores on four scales, including numerical ability, study-reading, science, and general information. It takes 155 minutes to complete. (The Psychological Corporation).

Electrical Sophistication Test - This instrument separates persons with substantial knowledge of electricity from those with no, little and merely chance knowledge. It screens candidates for a wide variety of jobs and positions in which electrical knowledge is important to competent performance. The test is multiple choice and consists of 14 items. There is no time limit, but many candidates finish within five minutes. (Psychometric Affiliates).

Entrance Examination for Schools of Nursing - This instrument is used in screening and selecting nursing school applicants. It provides 7 ability scores (verbal, numerical, science, reading comprehension, arithmetic processes, general information and scholastic aptitude) and 6 personality scores (achievement, orderliness, persistence, congeniality, altruism, and respectfulness). EESN takes 210 minutes to complete. (The Psychological Corporation).

Entrance Examination for Schools of Practical Nursing - EESPN is used to screen and select practical nursing school applicants. It provides 5 ability scores (verbal, numerical, science, reading, and arithmetic fundamentals) and 6 personality scores (achievement, orderliness, persistence, congeniality, altruism, and respectfulness). Completion time is 210 minutes. (The Psychological Corporation).

Flanagan Aptitude Classification Tests - FACT consists of a battery of fourteen tests. Scores are reported for areas such as memory, precision, coordination, tables, planning, ingenuity, mechanics and assembly. The instrument relates to 30 occupations, mainly ranging from skilled to professional. (Science Research Associates, Inc.).

General Clerical Test - GCT is a group administered paper-and-pencil test designed to measure aptitudes which are of importance in clerical work of all kinds. The following subtests are included: a) checking-comparing names, addresses, and amounts and picking out the differences, b) alphabetizing - recording the number of a file drawer for names, c) arithmetic computation, d) error locattion - using addition and subtraction to find the error in a matrix, e) arithmetic reasoning - reading problems, f) spelling - finding and correctly spelling words, g) reading comprehension - answering questions about two paragraphs, h) vocabulary - selecting the word that means the same, and i) grammar - finding and correcting the error in a sentence. Total administration time is 50-55 minutes. (The Psychological Corporation).

Gordon Occupational Checklist - GOC reports 5 scores (business, outdoor, arts, technology, service) and 30 smaller interest clusters. Content covers 240 jobs not requiring college training. Total administration time is 20-25 minutes. (The Psychological Corporation).

IBM Aptitude Test for Programmer Personnel - Designed for use in screening and selecting applicants for computer programmer training, this instrument provides scores on letter series, figure series, and arithmetical reasoning. It takes 65 minutes to complete. (International Business Machines Corporation).

Individual Career Exploration - ICE provides an inventory of interests, experience, occupational choices and abilities in 8 occupations groups: service, business contact, organization, technology, outdoor, science, general culture, arts and entertainment. It contains picture and verbal forms, and reports five scores: first two occupational choices, decision level and two most important job values. (Scholastic Testing Service).

Jewish Employment Vocational Service Work Sample System - JEVS work sample vocational assessment gives descriptive evaluation and quantitative results on client occupational aptitudes, behavior and expressed interest. It has 28 work samples that are associated with 10 Worker Trait group arrangements in the Dictionary of Occupational Titles (DOT), 3rd ed. and with 12 work groups of three work areas in the DOT, 4th ed.. JEVS was designed for economically disadvantaged, unemployed/underemployed youth and adults and requires 5 to 7 six hour days to complete. Scores are provided on: nut, bolt and washer assembly; rubber stamping; washer threading; budget book assembly; sign making; tile sorting; nut packing; collating leather samples; grommet assembly; union assembly; belt assembly; ladder assembly; metal square fabrication; hardware assembly; telephone assembly; lock assembly; filing by numbers; proofreading; filing by letters; nail and screw sorting; adding machine; payroll computation; computing postage; resistor reading; pipe assembly; blouse making; vest making; and condensing principle. (Vocational Research Institute - Jewish Employment and Vocational Services).

MacQuarrie Test for Mechanical Ability - The MacQuarrie contains seven subtests. The first three - Tracing, Tapping, and Dotting - measure eye-hand coordination and finger dexterity. The last four - Copying, Location, Block Counting, and Pursuit - place more emphasis on reasoning about objects in a plane and in space. The test takes about 20 minutes to administer, and has been used in selecting inspectors, assemblers, draftsmen, blueprint readers, power sewing machine operators, machinists, and tool and die designers, among other skilled tradesmen. (CTB/McGraw-Hill).

Manipulative Aptitude Test - MMA measures eye-hand coordination and manual dexterity. It involves two basic tasks (one using the preferred hand and one using both hands) which require movement of hands, arms, and fingers in thrusting and twisting motions. A rectangular plexiglass board with sockets and a T-bar are used. (Western Psychological Services).

Mechanical Handyman Test - This instrument is used to screen and select maintenance workers, and takes 130 minutes to complete. (Public Personnel Association).

Micro-Tower - This is a group aptitude for special needs populations that contains 13 work samples: electronic connector assembly, bottle capping and packing, lamp assembly, blueprint reading, graphic illustration, filing, mail sorting, zip coding, recording, checking, making change, payroll computation, want ad comprehension, and message taking. (Institute for Crippled and Disabled).

Minnesota Clerical Test - MCT is a test of speed and accuracy in performing tasks related to clerical work. The test consists of two parts: number checking and name checking. The subject identifies whether the 100 numbers and 100 name parts are identical or dissimilar. (The Psychological Corporation).

Minnesota Rate of Manipulation Test, 1969 Edition - MRM is designed to assess arm-hand dexterity. This test consists of a formboard with 60 round holes and 60 cylinders which are placed into the holes. There are five subtests, each requiring a different manipulative activity, i.e., placing, turning, displacing, and one-hand and two-hand turning. There are norms and instructions for the blind. (American Guidance Service, Inc.).

Minnesota Spatial Relations Test - MSRT consists of four parts. Each part requires the transfer of 58 blocks of assorted sizes and shapes from one board to another. Each block will fit only one hole in the board. (American Guidance Service, Inc.).

National Institute for Automatic Service Excellence Automotive Mechanic Testing and Certification Program - NIASE offers a testing and certification program to automotive mechanics. Twice yearly, in over 270 locations nationwide, the Institute gives a series of written tests which measure diagnostic and repair skills.

When an automotive technician passes one or more of these tests, and meets the two-year experience requirement, he or she earns the right to wear the NIASE patch. Since the NIASE program began in 1972, nearly a quarter of a million pros have passed tests and earned their certificates. Certified mechanics are leaders in the drive for excellence in automotive repair. NIASE tests mechanics in eight automobile, six heavy-duty truck, and two body/paint

specialty areas. Auto tests are: engine repair, automatic transmission/transaxle, manual drive train and axles, front end, brakes, electrical systems, heating and air conditioning, and engine performance. Body repair and painting/refinishing tests also are offered.

Each test is made up of between 40 and 80 multiple-choice questions, written by automotive experts from all parts of the industry. All questions are quality-checked by a panel of technical service representatives from domestic and import vehicle manufacturers, repair and test equipment manufacturers, and parts manufacturers, plus working mechanics and vocational educators. Tests are administered under strict security conditions, with the questions changed each time the test is given. (National Institute for Automotive Service Excellence).

N.I.I.P. Engineering Apprentice Selection Test Battery - This instrument is used to screen and select engineering apprentices. It measures spatial perception, nonverbal intelligence, arithmetic attainment, mechanical ability and information, and takes 180 minutes to complete. (National Institute of Industrial Psychology).

NLN Aide Selection Test - This instrument is used to screen and select applicants for aide positions in hospitals and home health agencies. It requires 35 minutes for completion. (National League for Nursing, Inc.).

O'Connor Finger Dexterity Test - This test was designed to assess motor coordination and finger and manual dexterity. Using a plate with 100 holes arranged in ten rows, the subject inserts small metal pins in each of the holes, in groups of three, as rapidly as possible. (Stoelting Company).

Ohio Trade and Industrial Education Achievement Tests - Tests are administered annually at participating schools. Each student must take two tests - the intelligence test and a trade achievement test. The 16 trade tests are in areas such as auto body, auto mechanics, basic electricity and electronics, cosmetology, dental assisting, health occupations, industrial electronics, machine trades, mechanical drafting, printing, sheet metal, and welding. (Instructional Materials Laboratory - Ohio State University).

Pennsylvania Bi-Manual Worksample - PBW measures hand and finger dexterity. The first part (assembly) requires manually assembling bolts and nuts and then placing them in a hole in the board. The second part (disassembly) requires removing the assemblies from the hole, taking them apart and returning the parts to their bins. (American Guidance Service, Inc.).

Purdue Pegboard - The Purdue Pegboard measures manual dexterity using a pegboard that contains two rows of 25 holes into which pins are inserted using the right hand, and both hands; then pins, washers, and collars are assembled using both hands. (Science Research Associates, Inc.).

Purdue Personnel Tests - PPT's measure job related technical information. They include, among others, trade tests for such occupations as carpentry, welding, sheet metal work, and engine lathe operation. (University Bookstore - Purdue University).

Purdue Test for Electricians - PTE was designed to aid industry and vocational schools in determining the amount of knowledge of electricity and electrical operations possessed by applicants or students. (Science Research Associates, Inc.).

RBH Industrial Questionnaire - This is a measure of general ability designed for use in the screening of basic blue collar employees, unskilled laborers and routine factory workers, operatives and craftsmen, and others involved in the electric utility, paper, ore, and chemical industries. Items cover reading comprehension, arithmetic reasoning, and chemical comprehension. The publisher states that the absence of a formal time limit makes the test useful in borderline cases where limited education or limited knowledge of the English language handicaps otherwise desirable applicants. (Richardson, Bellows, Henry and Company, Inc.).

RBH Non-Verbal Reasoning Test - Long Form - This instrument is a non-verbal and non-language test designed for use in batteries for the screening of technicians, engineers, engineering aids, technical salesmen, and any population for whom language presents a problem. The examinee must be able to read numbers in order to be tested since he must identify the illustrations and record his answers. The test measures reasoning and concept formation through the use of symbols and geometric figures. Some of the items are concerned with concepts such as: tangents, angle bisection, vertical-horizontal arrangement, and squareness. (Richardson, Bellows, Henry and Company, Inc.).

RBH Non-Verbal Reasoning Test - Short Form - This test measures reasoning and concept formulation through the use of symbols and geometric figures. It is non-verbal and non-language, and is appropriate for use in the selection of operatives and craftsmen, basic blue collar and unskilled labor positions, routine factory personnel, and any population for which language is a problem. (Richardson, Bellows, Henry and Company, Inc.).

The Self-Directed Search - SDS is a self-adminstered, self-scored, and self-interpreted tool that evaluates work related interests and abilities. It provides measures on six occupational scales - realistic, investigative, artistic, social, enterprising and conventional, and takes between 45-60 minutes. (Consulting Psychologists Press, Inc.).

Short Occupational Knowledge Tests - SOKT's measure knowledge of current content and concepts in each field, and are used by employers to differentiate between knowledgeable applicants and those having a limited understanding of the job. Tests are for the following occupations: auto mechanics, bookkeepers, carpenters, drafters, electricians, machinists, office machine operators, plumbers, secretaries, tool and die makers, truck drivers and welders. (Science Research Associats, Inc.).

Short Test of Clerical Ability - This instrument measures seven areas: arithmetic, business vocabulary, checking, coding, directions - oral and written, filing, and language. The test can be used for job placement purposes, and is intended for use with office positions. (Science Research Associates, Inc.).

Singer Vocational Evaluation System - SVES provides both vocational assessment and occupational exploration and identifies abilities, interests and work tolerances for vocational training. It consists of a series of 24 work sampling stations which represent the most common jobs found in the Dictionary of Occupational Titles (DOT). SVES measures client proficiencies in the following job areas: sample making, bench assembly, drafting, electrical wiring, plumbing and pipefitting, carpentry, refrigeration-heating-air conditioning, soldering-welding, office and sales clerk, needle trades, masonry, sheet metal, cooking and baking, engine service, medical service, cosmetology, data calculation and recording, soil testing, photo lab tehnician, and production machine operating. (The Singer Company).

SRA Mechanical Aptitudes - This is a group administered, multiple choice paper and pencil test. It contains three sections: a) mechanical knowledge - 45 pictures of commonly used tools and implements are identified and/or their use is given, b) space relations - 40 figures cut into two or three pieces which are mentally formed into a whole, and c) shop arithmetic - 124 problems, most of which are based on drawings. (Science Research Associates, Inc.).

SRA Test of Mechanical Concepts - This test reports four scores: mechanical interrelationships, mechanical tools and devices, spatial relations, and total. It may be used to evaluate individuals for hire, promotion, or training for jobs like assembler, machinist, factory production worker, or maintenance mechanic. (Science Research Associates, Inc.).

Stromberg Dexterity Test - SDT is designed to aid in choosing workers for jobs requiring speed and accuracy of arm and hand movement. It consists of 54 red, blue and yellow discs and a durable board containing 54 holes on one side. The subject is scored on the amount of time it takes to complete the task. (The Psychological Corporation).

Student Occupational Competency Achievement Tests - SOCAT consists of two parts - written and performance. The written test, which has a multiple choice format, covers factual knowledge, technical information, understanding of principles, and problem-solving abilities related to a particular occupation. The performance test, which is administered in a laboratory, school shop, or clinical setting, consists of work assignments designed to sample the manipulative skills required in an occupation. SOCATs enable students to demonstrate that they possess the knowledge that competent craftspersons employ in their daily work. In addition, a mental aptitude test is available for administration at the same time as the competency test. Thus, a one page printout can be provided for each student which indicates mental aptitude along with written and performance scores on the competency test. Any teacher, guidance counselor or test administrator can administer the aptitude test and the written multiple choice achievement test. A journeyman tradesperson or business representative with technical expertise in the occupation should administer the performance test.

Presently SOCATs are available in the following fields: accounting/ bookkeeping, agriculture mechanics, auto body, auto mechanics, construction electricity, drafting, general merchandising, general office, heating and air conditioning, horticulture, industrial electronics, machine trades, practical nursing, printing, radio and TV repair, refrigerator, sewn products, small engine repair, and welding. Tests will soon be available in eleven additional occupations, including banking, savings and loan, cabinetmaking, carpentry,

commercial foods, computer programming, construction masonry, industrial electricity, medical assisting, plumbing, production agriculture, truck and bus mechanics.

SOCATs were designed to measure end of program accomplishment, and are a key to competency-based vocational education. Students will be able to demonstrate their competence on a national test and use the test results as a credential for employment or advanced standing in educational programs. SOCAT results will also enable employers to hire individuals on the basis of demonstrated levels of competence, as opposed to letter grades, which lack definition. (National Occupational Competency Testing Institute).

Talent Assessment Program - TAP is a battery of ten instruments which measure dexterity, visual and tactile discrimination, and memory as they relate to the functional level of career related attributes and worker trait factors. This identification of vocational aptitudes facilitates training program assignment and job placement. Scores are provided on visualizing structural detail, sorting - size and shape, sorting - color, sorting by touch, handling small materials, handling large materials, using small tools, using large tools, visualizing flow paths, and memory for structural detail. TAP's appropriate for individuals age 13 and over who are at the 8th grade level. Total administration time is 160 minutes. (Talent Assessment, Inc.).

System Approach to Vocational Evaluation - SAVE provides an organizing framework for work-sample type vocational evaluation of disadvantaged and disabled clients. Most needed materials will already exist in schools, evaluation facilities, or industrial arts classes. The SAVE package was developed primarily to provide a way to obtain vocational evaluation information organized according to 47 worker trait groups within the Dictionary of Occupational Titles (DOT). The SAVE approach is unique in that commercially available work samples can be substituted for many of its components, and thus SAVE can be used as a structure for setting up a vocational evaluation work sample system in a variety of formats. (SAVE Enterprises).

Test of Retail Sales Insight - TRSI is a measure of knowledge of selling and sales transactions which can be administered to persons whose reading level is grade six or higher. The test can be administered orally to individuals whose reading level is questionable or below grade six. Subscores are: general sales knowledge, customer motivation and need, merchandise procurement and adaptation, sales promotion procedures, and sales closure. (Psychologists and Educators, Inc.).

TOWER (Testing, Orientation and Work Evaluation in Rehabilitation - TOWER is used to appraise the vocational potential of disabled persons. In includes fourteen broad areas of work evaluation: clerical, drafting, drawing, electronics assembly, jewelry, leather-goods, lettering, machine shop, mail clerk, optical mechanics, pantograph engraving, sewing, workshop assembling, and welding. (Institute for Crippled and Disabled).

USES Clerical Skills Tests - The six clerical tests developed by the United States Employment Service measure skills important in a variety of clerical occupations. The skills measured include typing from plain copy, ability to take dictation, general spelling, statistical typing, medical spelling, and legal spelling. (U.S. Government Printing Office).

USES General Aptitude Test Battery - The GATB, developed by the United States Employment Service was designed on the basis of job analyses and a factor analysis of 59 tests, and is composed of eight paper-and-pencil and four apparatus tests. These 12 tests in combination yield scores on nine factors: Intelligence (G), Verbal Aptitude (V), Numerical Aptitude (N), Spatial Aptitude (S), Form Perception (P), Clerical Perception (Q), Motor Coordination (K), Finger Dexterity (F), and Manual Dexterity (M). Raw scores on the nine factors are converted to percentile ranks or standard scores having a mean of 100 and a standard deviation of 20. The standard scores of an examinee can then be compared with those of the 36 or so occupational aptitude patterns (OAP's) determined from an analysis of the GATB scores of people in over 800 jobs. An OAP consists of minimum scores (cutting scores) on the tests that are considered essential for effective performance in that occupation. The entire GATB takes 2 1/2 hours to administer, and is appropriate for senior high students (usually twelfth graders) and adults. (U.S. Government Printing Office).

USES GATB-NATB Screening Device - The United States Employment Service designed this instrument to help determine whether clients should take the General Aptitude Test Battery or the Nonreading Aptitude Test Battery. (U.S. Government Printing Office).

USES Specific Aptitude Test Batteries - SATBs consist of combinations of two, three, or four GATB aptitudes with associated cutting scores. More than 450 of these have been developed by the United States Employment Service for use in selecting untrained or inexperienced applicants for referral to specific jobs or occupational training. (U.S. Government Printing Office).

VALPAR Component Work Sample System - VALPAR Work Samples assess vocational and functional skills designed to be used in conjunction with other testing instruments. They provide both the measures and clinical observations required for job placement, selection of training programs, and the development of educational plans. Scores are furnished on - small tools; size discrimination; numerical sorting; upper extremity range of body motion; clerical comprehension and aptitude; independent problem solving; multi-level sorting; simulated assembly; whole range of body motion; tri-level measurement; eye-hand-foot coordination; soldering and inspection (electronics); money handling; integrated peer performance; electrical circuitry and print reading; and drafting. VALPAR work samples can be used with almost any population, and require no reading except on items where the job would require it. Time varies from 10 minutes to 6 hours per work sample. (Valpar Corporation).

Vocational Competency Measures Project - Between October 1979 and December 1982, the American Institutes for Research was engaged in a nationwide effort to develop, field test, and validate 17 occupational competency tests under the sponsorship of the U. S. Department of Education. The project promoted the acceptance of student competency testing in vocational education and helped stimulate the continuing development of occupational competency tests.

After extensive interaction with many leaders in vocational education, the following occupations were selectd for the development of competency tests including cognitive, affective and performance elements:

Agriculture - Agricultural Chemicals Applications Technician, Farm Equipment Mechanic
Business and Office - Computer Operator, Word Processing Specialist
Distributive Education - Apparel Sales, Fabric Sales, Grocery Clerk, Hotel/Motel Front Office
Health - Dental Assistant, Physical Therapist Assistant
Home Economics - Custom Sewing, Restaurant Service (Waiter, Waitress, Cashier)
Technical - Electronics Technician, Water Treatment Technician, Wastewater Treatment Technician
Trade and Industry - Carpenter, Diesel Mechanic

The competency tests are intended to serve two major purposes: a) to help teachers and administrators of secondary and postsecondary vocational education programs evaluate and improve specific areas of their vocational programs, and b) to provide an objective basis for informing students, teachers, and prospective employers about the progress made by students in acquiring specific, job-related competencies. Employers may also find the tests useful for helping in selecting new employees and assessing objectively the training needs of present employees.

Each test package includes the following items:

- paper-and-pencil test - two parts, each part requiring no longer than one class period to administer
- a complete set of the "hands-on" performance tests for that occupation, each test containing examiner and examinee instructions, appropriate test props, and a test record sheet; the number of performance tests in each package ranges from 4 to 13
- Work Habits Inventory, for use as a teaching and counseling tool in job survival skills, and
- an Examiner's Manual, including directions for test administration, a summary of how the tests were developed, technical data on test reliability and validity, and scoring keys for the tests and the Work Habits Inventory.

AIR has established the usefulness of these instruments through extensive field testing and evaluation. (American Institute for Research).

Vocational Information and Evaluation Work Samples - VIEWS was specifically designed for the evaluation of mentally retarded persons. its 16 work samples are from four fields of work and assess client performance on six Worker Trait Group Arrangements appropriate to jobs which may be held by mentally retarded individuals. VIEWS evaluates occupational potential and work related behaviors for formulating Individual Education Plans (IEPs) and for recommending training, placement, and work adjustment programs. The total process encompasses 5 six hour days. Scores are provided on - tile sorting; nuts, bolts and washer sorting; paper count, cutting, collating and stapling;

stamping; nuts, bolts and washer assembly; screen assembly; machine feeding; mail sort; mail count; nut weighing; valve disassembly; drill press; budgette assembly; valve assembly; and ciruit board assembly. Objective observations are made concerning interpersonal relations, communications skills, responses to training techniques and supervision, attendance, punctuality, grooming, and dress. (Vocational Research Institute - Jewish Employment and Vocational Service).

Vocational Interest and Sophistication Assessment - VISA provides a reading-free picture instrument to obtain a measure of an individual's interest in and knowledge about a series of job options at the unskilled and semi-skilled levels. It is targeted toward mildy retarded adolescents and young adults, and takes between 30-60 minutes to complete. (O.S.U. Nisonger Center).

Wesman Personnel Classification Tests - WPC is a test of mental ability designed for use in the selection of employees for clerical, sales, supervisory, and managerial positions. The verbal subtest requires the use of reasoning through analogy and the perception of relationships in order to correctly respond to the item. The numerical subtest measures competence in basic arithmetic skills and processes and general facility in the use of numerical concepts. (The Psychological Corporation).

Wide Range Employment Sample Test - WREST was developed to measure work productivity on the basis of quantity and quality. Its main purposes are to a) determine horizontal or technical skills, b) provide a standardized method of job skill learning, c) identify employability level, and d) assist in job selection. Scores are provided on folding, stapling, packaging, measuring, stringing, gluing, collating, color matching, assembling, and pattern matching. This tool may be used with individuals age 16 through adult in the general population, as well as sheltered workshop and industrial settings. Total administration time is 2 hours. (Jastak Associates, Inc.).

E. OTHER USEFUL ASSESSMENT INSTRUMENTS

1. Pre-testing Procedure

Test Orientation Procedure - This package contains a tape recording and two booklets. It was designed specifically for disadvantaged job applicants with little prior testing experience. The first booklet, used together with the tape, provides general information on how to take tests. The second contains practice tests. In the absence of a tape recorder, the examiner may need instructions from a printed script. (The Psychological Corporation).

USES Pretesting Orientation Exercises - POEs were developed by the United States Employment Service to provide practice for the disadvantaged individuals who will be taking the GATB. The exercises themselves, the format of the test booklet used with them, and the manual containing directions for administration all closely resemble their GATB counterparts. A standard GATB answer sheet actually is used to complete the exercises. The exercises have been designed to reduce differences in aptitude scores resulting from disadvantaged clients being less familiar with test content, less able to understand test direcions and having less frequent experience in taking tests of any kind. (U.S. Government Printing Office).

USES Pretesting Orientation on the Purpose of Testing - This is a short, illustrated lecture and discussion technique that has been designed to reduce anxiety and increase motivation for testing in disadvantaged individuals by delivering information about the purposes of testing. In the half-hour orientation session a group listens to a narrator read from a prepared script of 23 topics, each with an accompanying picture. Thirteen of the topics pertain to what an aptitude test is and why it is administered, and ten provide test taking tips. (U.S. Government Printing Office).

2. Vocational Interests

AAMD-Becker Reading - Free Vocational Interest Inventory - The Inventory is a non-reading vocational preference test which identifies areas and patterns of occupational interests in mentally retarded people at the unskilled and semi-skilled levels. Scores are provided on automotive, building trades, clerical, animal care, food service, patient care, horticulture, janitorial, personal service, materials handling, laundry service, light industrial and housekeeping scales. Total administration time is 45 minutes or less. (American Association on Mental Deficiency).

Career Assessment Inventory - CAI is intended for students who are not seeking baccalaureate degrees, and who are undecided about their vocational plans. It is designed for individuals seeking career opportunities requiring a minimum of post-secondary education such as community college, technical training, or business school. Their interests are compared with those of workers in occupations needing less than a four-year college education. Target population includes 8th grade through adults. Total administration time is 40 minutes. (NCS Interpretive Scoring Systems).

Career Guidance Inventory - CGI was designed for counseling students with interests in trades, services, and technologies. Scores are reported for 14 engineering related trades (such as masonry, painting and decorations, electrical engineering) and 11 non-engineering related services (such as communications, data processing, and sales). (Educational Guidance, Inc.).

Career Guidance Inventory in Trades, Service and Technologies - CGI is a special interest inventory designed for students who are not planning on four or more years of college. It aids counselors who help students or adults plan career objectives. There are 25 scales for which CGI produces scores, such as carpentry and woodworking, masonry, mechanical repair, sheet metal and welding, drafting and design technology, chemical and laboratory technology, environmental health technology, agriculture and forestry technology, business management, communications, sales, transportation services, protective services, medical technology - laboratory, medical technology - nursing, food service, and several engineering technologies. (CTB/McGraw-Hill).

Harrington-O'Shea Career Decision-Making System - CDM is a self administered assessment tool which measures vocational interests, occupational abilities, and work related values. It is targeted for 7th grade to adults and provides scores on six interest areas including crafts, the arts, social, business, clerical and science. Total administration time is 45 minutes. (Amercian Guidance Services).

How Well Do You Know Your Interests? - This instrument was designed to collect information about likes and dislikes of certain jobs, activities, things, and people. It yields a 55 item profile of occupational interest factors to guide the student's career exploration and decision making. (Edupac, Inc.).

Interest Determination, Exploration and Assessment System - IDEAS is a self-scorable interest inventory which provides scores in mechanical/fixing, electronics, nature/outdoors, science, numbers, writing, arts/crafts, social service, child care, medical service, business, sales, office practices, and food service. It is intended for grades 6-12, and has a total administration time of 30-40 minutes. (NCS Interpretive Scoring Systems).

Jackson Vocational Interest Survey - JVIS was designed to provide scores representing interests and preferences relevant to work. There are 34 basic scales, including creative and performing arts, mathematics, skilled trades, dominant leadership, business, sales, law, human relations, management, and professional advising. It is appropriate for high school to adult levels, and takes one hour to administer. (Research Psychologists Press, Inc.).

Judgement of Occupational Behavior - Orientation - JOB-O is an exploratory instrument keyed to the top 120 jobs that show growth potential in the coming decade. It is updated every two years, with job titles added or deleted in accordance with predictions in the Occupational Outlook Handbook. The self assessment phase narrows job titles to those best matching personal needs. JOB-O is appropriate for 7th grade through adult levels and takes between 45-75 minutes. (CFKR Career Materials, Inc.).

Kuder Career Development Inventory - KCDI indicates possible career paths to explore in each of six broad interest areas at three levels of entry based on the amount of education generally required. Scores are provided in the following occupational clusters: technical/mechanical/skilled, scientific/theoretical, artistic/literary/musical, social service/personal service, persuasive/managerial, and clerical/computational. This instrument is appropriate for out of school youth, as well as those in the 9th and 10th grades, and takes 60-75 minutes to administer. (Science Research Associates).

Kuder General Interest Survey - Form E - This instrument measures broad vocational interests and is most appropriate at the junior high school level. It takes between 40-50 minutes to administer, and provides scores in outdoor, mechanical, computational, scientific, persuasive, artistic, literary, musical, social service, and clerical areas. (Science Research Associates, Inc.).

Kuder Occupational Interest Survey - Form DD - This tool measures occupational interests of 10th to 12th grade and adult populations. Scores are provided on 126 occupational and 48 college major scales. Total administration time is approximately 40 minutes. (Science Research Associates Inc.).

Kuder Preference Record - Vocational - This instrument is used for counseling and placement of high school students and adults. It provides ten interest scales, including outdoor, mechanical, scientific, computational, persuasive, artistic, literary, musical, social service, and clerical. Completion time is 30-40 minutes. (Science Research Associates, Inc.).

Minnesota Vocational Interest Inventory - MVII contains nine general interest measures, including mechanical, health service, office work, electronics, food service, carpentry, sales, and outdoors. It also yields 21 occupational scales for skilled jobs such as baker, carpenter, and plumber. (The Psychological Corporation).

Ohio Vocational Interest Survey, Second Edition - OVISII assesses interest in 24 occupational clusters including manual work, basic services, machine operation, quality control, clerical, health services, crafts and precise operations, skilled personal services, sports and recreation, customer service, regulations enforcement, communications, numerical, visual arts, agricultural and life sciences, engineering and physical sciences, music, performing arts, marketing, legal services, management, education and social work, and medical service. Between 35-60 minutes are required for administration. (The Psychological Corporation).

Peabody Individual Achievement Test - PIAT is an individually administered, wide-range achievement battery with subtests in mathematics, reading recognition, reading comprehension, spelling, and general information. No written responses are required by the subject - he responds orally or by pointing. The mathematics subtest measures basic skills such as matching, discrimination, and number recognition - as well as advanced concepts in geometry and trigonometry. In the reading recognition subtest, the examinee is required to match letters of the alphabet, name individual letters, and read aloud individual words. The items in this subtest range in difficulty from the preschool through high school level. For the reading comprehension subtest, the examinee silently reads a sentence and then must select the one of four illustrated options which best represents the meaning of the sentence. The item difficulty range for the spelling subtest is kindergarten through high school For this subtest, the examinee is asked to select the letter of the alphabet as being different from the other items pictured, identify the letter that represents a speech sound or named letter, and point out the correct spelling for individual words which have been pronounced and used in sentences by the examiner. Topics such as science, social studies, fine arts, and sports are included on the general information subtest designed to tap general knowledge which can be acquired in situations other than school. (American Guidance Services, Inc.).

Picture Interest Exploration Survey - PIES was designed to help in the investigation of individuals' vocational interests and to apply this information to pursuing career goals. A PIES test kit includes 160 color slides, 2 slide trays, 1 audio tape, 2 sets of career reference cards, 1 student-teacher manual, and 50 response sheets. Colored 35mm slides are utilized to depict 12 specific careers within each of 13 career clusters. The career-cluster system is based on the Occupational Outlook Handbook and is cross-referenced to the Dictionary of Occupational Titles. Each slide shows a worker's hands performing a task considered to be representative of a particular occupation within a career cluster. Users indicate interest in a particular career by circling the number of that slide on their response sheet. The survey may be administered individually, in a group, or self-administered. (Educational Achievement Corporations).

Planning Career Goals - PCG assesses a variety of abilities, interests, values and occupational information pertinent to 12 fields of work. This battery of tests assists individuals at the 8th to 12th grade levels in making realistic educational and career plans. Planning is based on a) knowledge of one's own traits and preferences and b) comparisons with people who are actually employed in the person's preferred career. Test time is approximately 4 hours and 45 minutes. (CTB/McGraw-Hill).

Strong-Campbell Interest Inventory - SCII measures an individual's occupation interests, not aptitude or intelligence, by comparing his/her scores on a number of scales with scores of a) people in general and b) people in a wide variety of occupations. It has six general occupational themes, 23 basic interest scales, and 162 occupational scales. This instrument is appropriate for 8th grade through adult levels, and requires 20-60 minutes to administer. (Stanford University Press).

USES Interest Inventory - This instrument provides measures of occupational interest in the 12 interest areas into which all 4th edition DOT-defined occupations have been classified in the USES Guide for Occupational Exploration. The 12 scales include artistic, scientific, plants and animals, protective, mechanical, industrial, business detail, selling, accommodating, humanitarian, leading-influencing, and physical performing. The interest inventory can be completed within 15-20 minutes. (U.S. Government Printing Office).

Wide Range Interest-Opinion Test - WRIOT was developed to determine interests and attitudes of individuals regardless of age, sex, mental ability, cultural background, or educational level. It does not require reading or language understanding and can be used with a translation of the instructions and report form in any language. The instrument consists of 150 sets of three line drawings, each depicting people working at some activity. The test-taker responds to each set with the most and least preferred. Completion time is approximately 40 minutes. (Jastak Associates, Inc).

World of Work Inventory - WWI facilitates selection of an appropriate career or vocation consistent with personal interests, aptitudes and temperaments. Scores are provided on the following scales: career interest activities, job satisfaction indicators, and vocational training potentials. The instrument is appropriate for 8th grade through adult levels, and requires 2 1/2 hours to complete. (World of Work, Inc.).

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